

V. 4 78 # 5

In this issue . . .
APPLIED SCIENCE READING ROOM

93

APPLIED SCIENCE READING ROOM
UNION LIBRARY
V. 4 78 # 5

THE *Country* GUIDE

- American Beef Breeds
- What About Farm Policy?
- Hook Your Own Rug

CANADA'S NATIONAL RURAL MONTHLY



APPLIED SCIENCE READING ROOM

MAY 1959 — 15¢

"The best defense is a good offense"

Take the offensive against profit cutting weeds with **WEEDONE!**



*The first,
the best,
the most complete
weed killer line*

When you use a WEEDONE Weed Killer, you can rest assured you're getting the chemical formulation developed specifically for the job it's intended to do. Years of experience plus pioneering developments in chemical weed killers have made Weedone products the most accepted herbicides among Canadian farmers. Weedone is the modern way to control weeds on farmlands—it's the "selective" way . . . powerful chemical formulations designed to control weeds without injury to adjoining crops. Get efficient, low-cost-per-acre control of problem weeds now—with WEEDONE, the weed killers for every purpose!

All product names in this advertisement are registered trademarks of Amchem Products, Inc.

WEED KILLERS FOR EVERY WEED PROBLEM

- **WEEDONE CONCENTRATE** —An ethyl ester formulation (contains 64-oz. 2,4-D acid equivalent per gallon)—especially effective for control of hard-to-kill annual and perennial weeds. Emulsifies readily in hard or soft water. Economical—Versatile—can be used even if rain threatens!
- **WEEDAR MCPA CONCENTRATE** —Amine formulation (64-oz. of 2-methyl-4-chlorophenoxyacetic acid per gallon), specifically recommended for controlling weeds in oats, flax, peas and newly seeded or established legumes. Safe, selective, especially tolerant to the crops.
- **WEEDAR 80** —Amine formulation (80-oz. of 2,4-D acid equivalent per gallon), ideal for control of annual weeds. Extremely easy to use, is completely soluble in water, will not clog spray nozzles.
- **WEEDONE LV4** —This powerful, low volatile butoxy ethanol ester (64-oz. 2,4-D acid equivalent per gallon) provides deep penetration and effective killing action on hard-to-kill annuals and perennials. Use for spraying near susceptible crops, shelter belts or horticultural crops.
- **ACP GRASS KILLER (TCA 94%)** —A 94% sodium trichloroacetate formulation used extensively throughout Western Canada for control of annual and perennial grasses in non-cropped lands, ditchbanks, fence rows, industrial areas, parking lots, railroad ballast and special crops such as flax, field peas, alfalfa and beets.
- **WEEDAZOL AMINO TRIAZOLE WEED KILLER (ATA)** —Newest Weedone formulation for powerful killing action on hard-to-kill perennial weeds. Being effectively used to control Canada Thistle, quack grass, Russian knapweed, toad flax, leafy spurge, cattail, poison ivy and poison oak. A selective non-sterilant you can use with complete confidence.

See your nearest U.G.G. Agent or Dealer, or write to

UNITED GRAIN GROWERS LTD.

SOLE DISTRIBUTORS OF WEEDONE PRODUCTS IN WESTERN CANADA

WINNIPEG

CALGARY

EDMONTON

SASKATOON

REGINA

IN THE SECOND HALF OF A CENTURY OF SERVICE TO THE FARMERS OF THE WEST

THE Country GUIDE

Incorporating The Nor'-West Farmer and Farm and Home

CANADA'S NATIONAL RURAL MONTHLY

In This Issue

- **RUSSIAN WILD RYEGRASS** — how does it rate as a pasture crop? Dr. Tom Lawrence gives the answer on page 16.

- **PLAYCLOTHES** for the young set are highlighted this month in our pattern feature on page 69.



Russian Wild Ryegrass.

ARE FARMERS LOSING CONTROL OF THEIR OPERATIONS?
Editor Lorne Hurd invites you to take "A Second Look at Contracting" in the light of recent experience—see page 18.

Features

The American Beef Breeds—by Cliff Faulknor	13
Does It Pay to Grow Sugar?—Staff Report	14
Farm Policy—Now and in the Future—by David L. MacFarlane	15
Russian Wild Ryegrass—by Tom Lawrence	16
Two Ways to Finance Hogs—by Don Baron	17
A Second Look at Contracting—by Lorne Hurd	18
Fighting the Hailstone Hazard—by L. T. Sardone	19

Short Features

Through Field and Wood	21	Irrigating in the Garden	40
Stiff Words from U.S. Livestock Man	22	Interplanting Young Orchards	40
Buying Feeder Cattle	25	Granite for Poultry Crit	42
Thoughts on Dairy Crossbreds	30	When Poults Leave Brooder House	44
Cost of Raising Calves Halved	32	Concrete Horizontal Silo	46
Tobacco Crop for Nova Scotia?	34	Rural Route Letter	82
Infantry in Crasshopper Battle	37	Valley Keeps Cucumbers Crisp	83

News and Views

Editorial Comment	4	Farm Organizations	10
What's Happening	5	Cuideposts	11
Weather Forecast	6		

Farm Practice

Livestock	22	Poultry	42
Dairying	30	Farm Mechanics	45
Workshop	33	Farm Buildings	46
Soils and Crops	34	What's New	48
Horticulture	40		

Fiction

Ranger of Sun Dance, Part IV—by John Patrick Gilgese	55
--	----

Home and Family

Your First Hooked Rug— <i>by Greta G. Carroll</i>	60
Car Camping Trails in the Rockies— <i>by Cliff Faulknor</i>	61
First Crop— <i>by Donovan Clemson</i>	63
Summer Harvest of Color— <i>by Gwen Leslie</i>	64
Home Freezer Hints	65
A Cornice Can Be Sewn	66
It's New	67
Sewing	68
Patterns	69
Improving Your Home Movies	70
Boy and Girl	71
Young People	72

COVER: Gulls gathering at dawn on Jessica Lake in the Whiteshell Forest Reserve, Manitoba. Painting by Clarence Tillenius.

Editor: LORNE HURD
Associate Editor: RICHARD COBB
Field Editors:
CLIFF FAULKNER, Western Canada
DON BARON, Eastern Canada

Home and Family Section:
Associate Editors:
ELVA FLETCHER
GWEN LESLIE

Contents of this publication are copyrighted. Non-fiction articles may be reproduced if credit is given to The Country Guide.

Printed and published by The Public Press Ltd. President: J. E. BROWNLEE, Q.C.
Publisher and Managing Director: R. C. BROWN Business Manager: J. S. KYLE
Circulation Manager: G. B. WALLACE Advertising Manager: R. J. HORTON

Subscription rate in Canada—50¢ one year, \$1 two years, \$2 five years, \$3 eight years.
Outside Canada—\$1 per year. Single copies 15¢. Authorized as second class mail, Post Office Department, Ottawa. Postmasters return Forms 29B and 67B to:

1760 Ellice Avenue, Winnipeg 12, Manitoba.

Serving Canadian Farmers Since 1882

MORTGAGE LOANS TO FARMERS

To buy land, purchase livestock and machinery, repair or erect new buildings, pay debts and any other purpose connected with farm operations.

MAXIMUM LOANS

65% of productive value. Not to exceed \$15,000

Up to 30 years to pay

Interest Rate 5%

For further information clip and mail this coupon to
Canadian Farm Loan Board
Ottawa, Canada

Name _____ P. _____

P.O. _____ Prov. _____

NOTE: Farms cannot be inspected after freeze-up

CANADIAN FARM LOAN BOARD

C.C. KING

& COMPANY LIMITED
1485 ERIN ST. WINNIPEG 3 MAN.

CULTIVATOR STEELS

PLANETIZED STEELS ARE THE BEST
Because

- **Planetized steels stay sharp longer**
... No Blunt Edges
- **Are tough clear through**
... No "Case" Hardening to be ground off in sharpening
- **They score perfectly**
... No pile up of soil on rough surfaces

SWEEPS • CHISELS • SPIKES • AND SPECIAL STEELS FOR ALL FIELD CULTIVATORS AND DEEP TILLAGE PLOWS

- 7 Sweep Series for Deep Tillage Plows
- 5 Sweep Series for Field Cultivators



FREE

30 DAYS SUPPLY
Safe Comprehensive Nutritional Formula

VITAMINS

MINERALS AND AMINO ACID

25 proven ingredients — 11 vitamins (including B12 and folic Acid), 11 minerals, Choline, Inositol and Methionine



Yes we want to send you FREE a 30-day supply of high-potency Vitafast Capsules (a \$5.00 value) so you can discover for yourself how much happier and better you may feel after a few days' trial! Each capsule supplies your body with as much or more of the vitamins and minerals included in this comprehensive formula as most well-nourished people consume in a well-balanced meal.



Potency and Purity Guaranteed

You can use these Capsules confidently because strict regulations demand that you get exactly what the label states—pure ingredients whose beneficial effects have been proven time and time again!

Amazing Plan Slashes

Vitamin Prices Almost in Half

With your free vitamins you will also receive complete details regarding the benefits of this amazing new Plan that provides you regularly with all the factory-fresh vitamins and minerals you may need. You are under no obligation to buy anything! If after taking your free Capsules for three weeks you are not entirely satisfied, simply return the handy postcard that comes with your free supply and that will end the matter. Otherwise it's up to us—you don't have to do a thing—and we will see that you get your monthly supplies of vitamins on time for as long as you wish, at the low money-saving price of only \$2.78 per month (a saving of almost 50%). Mail coupon now!

VITAFAST PLAN (CANADA) LTD.
394 Symington Ave., Toronto 9, Ont.

VITAFAST PLAN (CANADA) LTD. DEPT. CG 59
394 Symington Ave., Toronto 9, Ont.

Yes, I accept your generous no-risk offer under the Vitafast Plan as advertised in Country Guide.

Send me my FREE 30-day supply of Vitafast Capsules as checked below:

☐ Man's Plan ☐ Woman's Plan

I ENCLOSE 25¢ PER PACKAGE for packing and postage.

Name _____

Address _____

City _____ Prov. _____

This offer is limited to those who have never before taken advantage of this generous trial. Only one trial supply per person.

Editorials

Agriculture on the Spot

THE federal and provincial governments have intervened in the economic affairs of farm people in numerous ways and to a fairly marked extent.

They have used a great deal of the taxpayers' money, and a corps of highly trained specialists for the purpose of providing the ways and means of increasing farm productivity and efficiency, and of assisting farmers to adjust to technological changes as these develop in this country and elsewhere. The principal methods used to bring this about have been the establishment and gradual growth of what are now fairly extensive research, extension and educational programs, and by providing special credit programs for farmers.

The Federal Government has also enacted price support legislation designed to help provide greater stability to farm prices and better incomes for agricultural producers.

Broadly speaking, these and other government programs are ones that have been asked for and are supported by a majority of our farmers and farm organizations. In fact, there are many who criticize existing programs as being inadequate. But whatever view we may hold, most thoughtful people will agree that, either alone or in combination, such programs have resulted in two clearly established trends.

1. They have led to horizontal integration of farms—larger, but fewer and more efficient production units—and to the encouragement of various and diverse contractual arrangements in the livestock and poultry field among farmers, suppliers, processors and retailers.

2. They have created conditions which have increased the number of technologically displaced farm people—people on farms, who because they are either unable or unwilling to adjust to technological change, can no longer earn an adequate living from their farming operations.

Moreover, as Dr. MacFarlane points out in an article commencing on page 15 of this issue, the technologically induced forces at work in agriculture mean that from now on we will be faced with either potential or actual overproduction of certain farm commodities—overproduction which Canada may not either be able to sell at reasonable prices to other countries or, in fact, in some cases, even move at greatly subsidized prices or as give-aways.

Up to this point we have not intended nor implied any criticism of anyone. What we have attempted to do is describe some of the more important aspects of the current situation as objectively as possible. The situation clearly places both governments and farm organizations on the spot.

ONE needs to look no further than to the announced change in the price support for hogs for a clue to the dilemma facing our farming industry. Since the Government set the support price on hogs at \$25 per cwt. about a year ago the Agricultural Stabilization Board has accumulated an excess of 65 million pounds of pork products. As a consequence, the support level is to drop to \$23.65 per cwt. on October 1 of this year. Moreover, the Minister of Agriculture has directed the Board and officers of his department to actively explore a method of providing price support for hogs by means of a payment to producers, commonly described as a deficiency payment, rather than by undertaking to purchase pork products. Under this alternative method, the

price of hogs would not be supported in the market, but producers would be paid the difference between the actual average price received and the prescribed support price.

According to Mr. Harkness this method would make it possible to withhold payments from commercial organizations operating under the so-called vertical integration plan, and to limit payments to any individual to a specific number of hogs delivered.

While we think it was obviously necessary to lower the price support, we are not at all sure about the wisdom of changing to a deficiency payment program for hogs under the conditions outlined. Apparently the Minister of Agriculture, with the support of the Government which is spending several tens of millions of dollars annually to bring forward new and improved methods of production for farmers to apply—has now decided that the ones who do the best job of adjusting to new technologies are to be penalized, either completely, if they tie up their operations under a contract with a feed company, or partially, if they can manage on their own by receiving a guaranteed price on only part of their output. This is indeed a strange contradiction.

Hogs can be mass-produced either with or without a contract, alone or in combination with other farm enterprises. The terms of the contracts vary. This situation and the Minister's

announcement prompt us to raise these questions.

Wasn't the original mistake made when the price support was set at an incentive level, and guaranteed not to change appreciably for the next several years? Is it economic justice to attempt to discourage production on only the efficiently organized and managed farm enterprises by means of a restrictive deficiency payment program? Does a hog producer cease to be a farmer when he signs a contract? Are our governments going to turn their backs on those who through government activities have been encouraged to become efficient producers? Is the Stabilization Board going to hire an army of inspectors to police farms to determine who qualifies under the rules which would ultimately have to be laid down? What effect is a deficiency payment program likely to have on Canadian exports of pork products to the United States and to other countries? Will the market price go so low as to make the cost to the Federal Treasury prohibitive? What criterion will be used to establish the maximum number of hogs from a single producer that will be eligible for deficiency payments?

There are undoubtedly other pertinent questions which might be raised. The situation seems to be a good example of the kind of situation we are heading into with certain farm commodities. It underlines the need for an immediate and clear-cut assessment of economic and social implications of the rapid technological changes taking place in agriculture. Not until we get such an assessment can either farm organizations or governments decide what are fair and proper policies and programs to implement. In the meantime, it would appear the Government is going to proceed with a trial and error method. We can only hope its actions will not jeopardize the stabilization program for hog producers generally. V

Perspective for Canadians

CANADA today, even in the face of unemployment and inflationary pressures, enjoys a standard of living unknown to many of the world's peoples. Industrious people, abundant natural resources and research in the sciences have made possible the good life, almost a golden age. Yet with all this progress how far have we advanced in our awareness of what makes good citizens, and of the ever-present need to keep our fences in the field of human relations well mended? Our social evolution seemingly has fallen far short of our efforts to provide for our material needs.

As the result of our inventiveness, perhaps because of it, there has been an almost frightening surge of materialism and with it, the dangers of complacency, sentimentality, conformity. This was the cautionary note expressed by an eminent Canadian to an international audience not too long ago. It was a delicate reminder from a thoughtful man of the wisdom of being alert to any signs of decadence in our society.

We pride ourselves on the ideals that have helped to build a good country. But we are reminded that "the finest ideals in the world can be tarnished by smugness." They tarnish when they are touched by the spirits of self-gratification or self-satisfaction.

Sentimentality is a second danger. We should build our social and economic institutions with good judgment. First there must be the idea, then the idea made to work by realistic thinking.

Today's cult of conformity is another very real danger. There is obviously a need for the standardization of material needs, but such a standardization must not be allowed to invade the things of the mind if our country is to continue its growth. In this growing conform-

ity to what extent are we losing our individuality? How important is it to us individually that we have the latest washing machine, the newest car? How much time and effort do we put into creative satisfactions in our work and play? Or do we permit our senses to be dulled by the dubious pleasures of mass entertainment?

History books are filled with stories of nations which grew strong and prosperous because their citizens did not shrink from responsibility, which combined their creative talents with physical strength and put both to work for the well-being of all. The Athenians, from whom we derive so much of our basic philosophy, offer an outstanding example; but as they wanted more freedom from individual responsibility, they ceased to be free.

In this month when Canada marks another year of growth, and as she prepares to open a seaway into her heart, some observations by the Canada Council seem pertinent:

"The country's surging growth, with the promise of still greater prosperity and even more leisure, poses its own problems. Life and business are likely to become more complex. People will need more 'know-how' in industry and business and also greater skill to manage themselves, to enjoy their leisure, to control their environment and to use their machines. All this points to the need for more education—more training of engineers, scientists, and business men, of course—but also for greater numbers of inspired and talented teachers, of artists, humanists and social scientists, and of thinkers of every sort.

"Material prosperity alone will not make a great nation. As we press on to push back the frontiers of material progress, we must aim to advance on the spiritual front, and advance in our artistic expression as a nation." V

What's Happening

DAIRY PRICE SUPPORT CHANGES

The Agricultural Stabilization Board has been authorized to support dairy products for the 12-month period commencing May 1, 1959, on the following basis:

1. **Butter.** The price support on butter will continue at 64 cents per lb. Canada First Grade, basis delivery Montreal and Toronto.

2. **Cheese.** The cheese price support will be 32 cents per lb. First Grade f.o.b. warehouse in Ontario, 31½ cents per lb., delivered Montreal and Quebec.

In addition, cheese producers will receive a payment of 25 cents per 100 lb. of milk delivered for the manufacture of cheese. The support price, plus 25 cents per 100 lb. for milk will provide an effective support price for cheese of 34 8/10 cents, or a support that is 8/10 of a cent higher than the present support price.

3. **Skim Milk Powder.** The support price on this product will be reduced from 15 cents per lb. to 10 cents for the period May 1 to Sept. 30, after which date the support price for powder will be discontinued.

In lieu of this reduction, the Stabilization Board will make a payment of 25 cents per 100 lb. of milk for all milk delivered for manufacturing purposes, with the exception that no payments will be made to producers who sell a portion of their milk within the fluid bottled milk market. The net result will be to reduce producers' returns by 15 cents per 100 lb. on milk used for manufacturing purposes.

According to Agriculture Minister Harkness the support program for dairy products for the ensuing dairy year is designed to cut down production of skim milk powder, of which there is a surplus, and increase production and consumption of cheese and the production of other dairy products such as casein.

UNITED GRAIN GROWERS EXPAND

Purchase of all country and terminal elevators formerly operated by Canadian Consolidated Grain Company was announced recently by J. E. Brownlee, Q.C., president of United Grain Growers Limited. This includes 129 country elevators and two terminal elevators at the Lakehead. Twenty-five of the country elevators are in Manitoba and 104 in Saskatchewan, and these, with associated annexes, increase U.G.G. country elevator capacity by 6.5 million bushels.

This purchase brings to a total of 797 the number of country elevators in the Prairie Provinces operated by United Grain Growers Limited. Including terminal elevators at the Lakehead and at Vancouver, and some construction now in progress, the Company will now be operating an elevator system with a total capacity of 70 million bushels.

United Grain Growers Limited, now one of the world's largest grain handling institutions and with a history of over half a century, is co-

operatively owned and operated by 50,000 Prairie farmers. ✓

DEFICIENCY PAYMENTS ON WOOL

A total of 41,979 payments amounting to \$1,372,876 have been made under the Agricultural Stabilization Board's wool deficiency payment program for the year ending March 31, 1959.

This deficiency payment was 28 cents a pound on eligible wool. It is calculated as the difference between the average price f.o.b. Toronto for Western Range Choice half staple, which amounted to 32 cents, and 60 cents a pound. Payments have been made from copies of grade certificates issued at wool warehouses. ✓

PACKED SOIL HELPS GERMINATION

"Packing firms the soil, and firm soil is vital for good seed germination," says Jack Peck, farm mechanics specialist with the Saskatchewan Department of Agriculture. This is timely advice right now, when many Western farmers have reason to be anxious about germination under dry conditions.

Mr. Peck advises that the ordinary drill press packs well if there is not too much trash, but may not exert enough pressure for an adequate job on heavy trash. Where this occurs, the hoe press drill is useful. It has cultivator-type furrow openers to place seed below the trash, and then the press wheels pack the soil on top of the seed.

The most suitable packer for all conditions is the east-iron "V" wheel, with the self-cleaning spiral packer as a good second choice, says Mr. Peck. He advises against the crow-foot packer under present conditions, because it pulverizes the surface instead of leaving it reasonably cloddy to reduce wind erosion.

In summary, his advice is to use sub-surface packers rather than the surface types, which pulverize soil and can lead to erosion. Extra weights may be needed to make packers work efficiently. ✓

SASK. FARM MACHINERY TEST REPORTS RELEASED

First of the 1958 public test reports on farm machinery were released recently by J. T. Kyle, director of the Agricultural Machinery Administration, Saskatchewan Department of Agriculture, Regina.

These reports give a fair and reasonable evaluation of a machine's functional and structural performance in representative Saskatchewan conditions. Intended for farm people, they are designed to assist them in selecting machinery that will adequately serve their purposes in their particular conditions. Reports are available to all bona fide farmers in Saskatchewan, and may be obtained by writing to the Agricultural Machinery Administration office, or from local agricultural representatives. ✓

(Please turn to page 7)



Mr. Arndt

and

THE

BANK

Mr. Martin Arndt, pictured at the right in this photograph, is a grain and livestock farmer near Barrhead, Alberta. Typical of modern Canadian farmers, he's active in the Farmers Union and Agricultural Society. Since 1928 Mr. Arndt has looked to The Toronto-Dominion Bank and its manager in Barrhead for the best in banking counsel. And for good reason. "The Bank's" managers typified by Joseph W. Runge, our present Barrhead manager, are thoroughly acquainted with the banking needs and problems of farmers. And more important, they're always ready to put that knowledge and experience to work for you. So whatever your particular banking requirements—from Farm Improvement Loans, to savings or chequing accounts—make it a point to see your nearby Toronto-Dominion Bank manager. Drop in soon and see for yourself why . . .

People make the difference at

THE

TORONTO-DOMINION

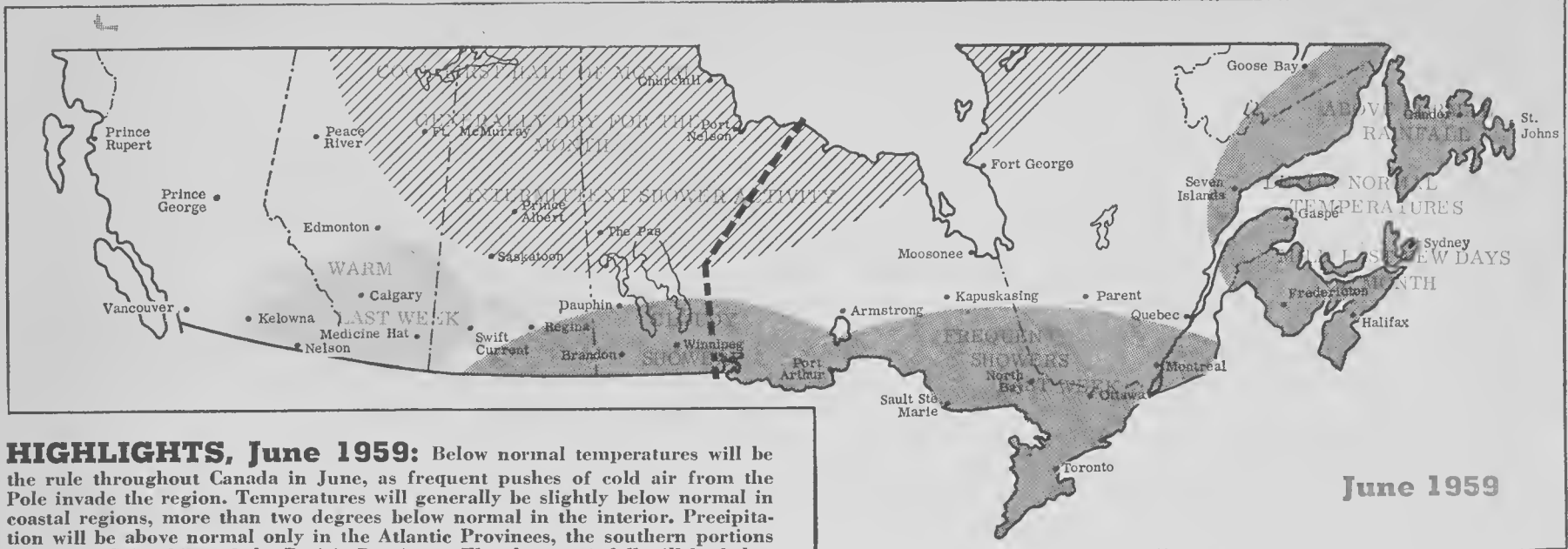
BANK

THE BANK THAT LOOKS AHEAD

THE Country GUIDE

Weather Forecast

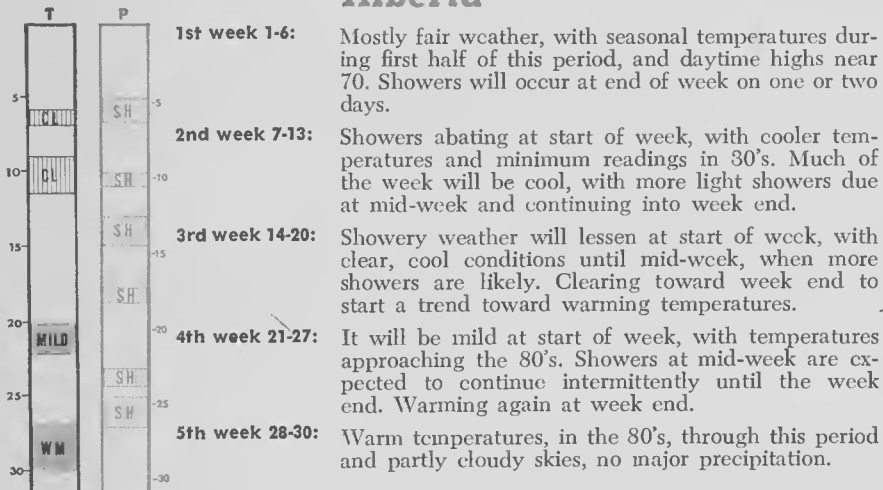
Prepared by DR. IRVING P. KRICK and Associates



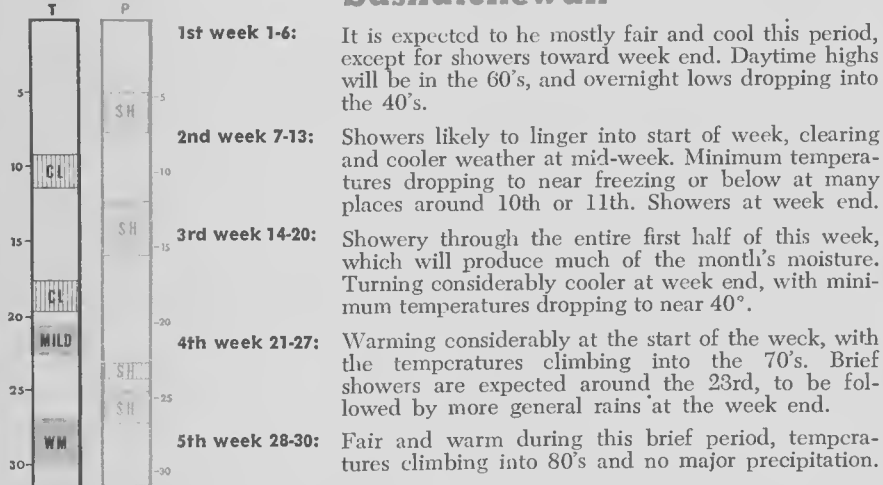
HIGHLIGHTS, June 1959: Below normal temperatures will be the rule throughout Canada in June, as frequent pushes of cold air from the Pole invade the region. Temperatures will generally be slightly below normal in coastal regions, more than two degrees below normal in the interior. Precipitation will be above normal only in the Atlantic Provinces, the southern portions of British Columbia and the Prairie Provinces. Elsewhere, rainfall will be below normal.

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—ed.)

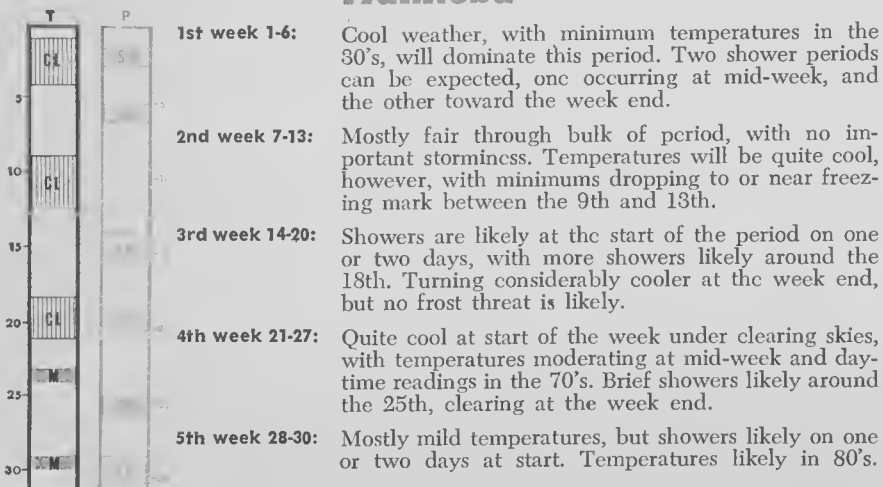
Alberta



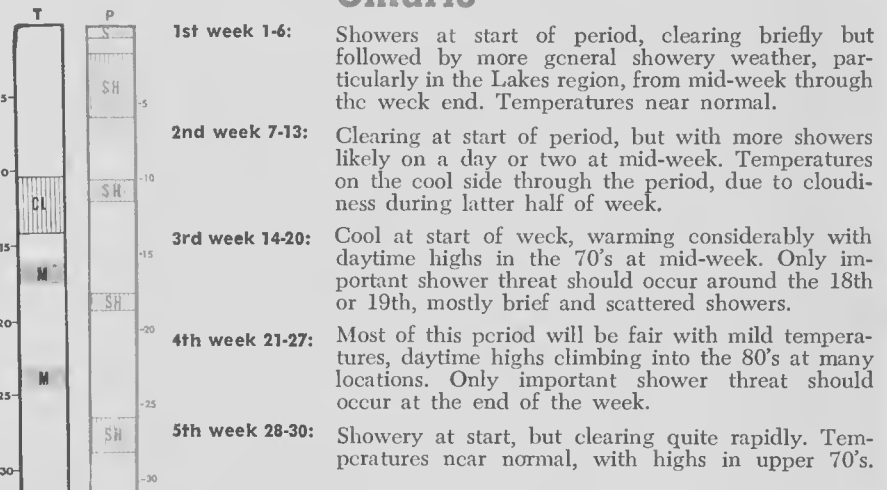
Saskatchewan



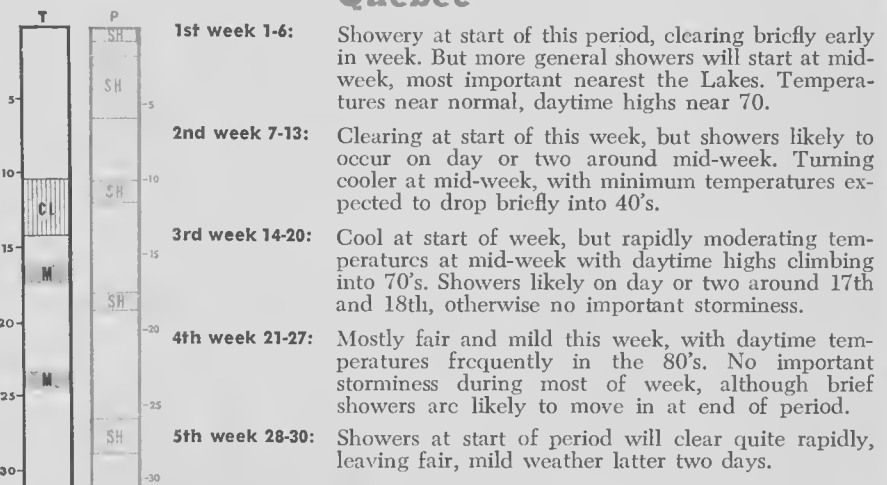
Manitoba



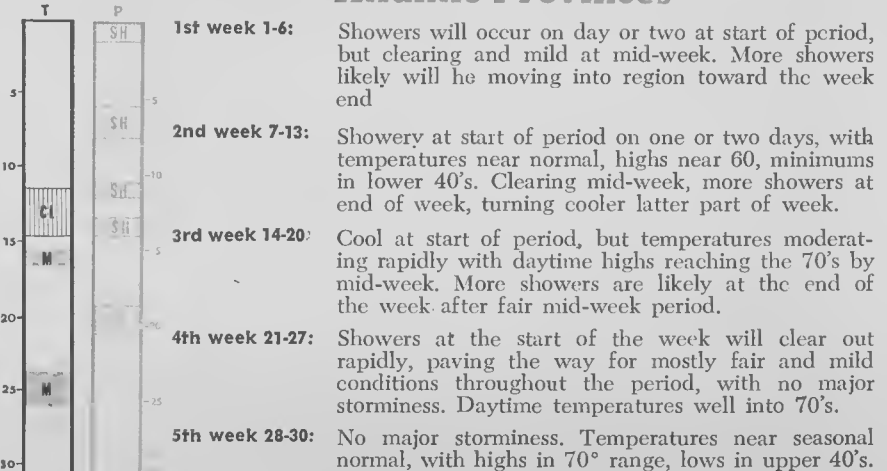
Ontario



Quebec



Atlantic Provinces



What's Happening

(Continued from page 5)

BRACKEN REPORT ON DISTRIBUTION OF BOXCARS

The long-awaited Report of the Inquiry into the Distribution of Railway Boxcars has been released. The 126-page document, prepared by Commissioner John Bracken, calls for some basic changes in the methods being employed.

Readers will recall that Mr. Bracken was called upon by the Government to recommend procedures or methods by which as high a degree of *equity* and *efficiency* as possible may be achieved in the distribution of railway boxcars, particularly during periods of congestion, taking into account all the relevant factors.

In summing up the representations made by farmers and farm organizations, the report indicates that the submissions seemed to make reasonably clear what most farmers were against: (1) nearly all were against any plan which might tie a farmer against his will to any one elevator for a year at a time; (2) a large majority was opposed to the present formula for allocating cars; (3) and a considerable majority was against the voting plan.

The report states that it was also quite clear what objectives the majority favored. It appeared that about three to one favored a change in the present method of allocating boxcars; that a considerable majority would favor allocation on the basis of deliveries, in preference to either the present formula, the voting system, or stocks in store. Only about one in eight spoke or wrote in favor of the voting system, and an even smaller proportion in favor of stocks in store.

The report concludes: "From submissions made at these meetings, and from discussions with many farmers, it appears that two procedures which would have the widest support and the least opposition, are (1) the right at any time for a farmer to use the elevator he prefers at a shipping point, and (2) the right of companies to receive cars in proportion to the grain delivered to them by farmers."

The report is lengthy and deals with a complex subject. We can do no more than to bring you the major recommendations which follow:

- In the interests of providing the highest degree of equity and efficiency possible, the present boxcar distribution procedure should give way to a more fully competitive elevator operation—both at local points and as between companies—as far as this is practicable under present conditions.

In the distribution of shipping orders among elevator companies the report recommends that the revised plan be based on the following three widely accepted ideas:

1. That the allocation of shipping orders to different elevator companies be on the basis of current business earned by each;

2. That the practice of embargoing shipments from full elevators at points where competing elevators have space and are free to take in new business, be discontinued;

3. That each elevator at a shipping point be kept in a position to compete fairly with the others by the receipt of sufficient shipping orders from its parent company, and sufficient cars from the railways, to keep it from being plugged and then out of business when others are not.

In the implementation of the recommendations the report suggests that the Wheat Board consider that from the date of the changeover from the division of shipping orders on the basis of the present (secret) formula, to the division of these orders in proportion to the percentage of receipts by each company, it make such division on the basis of the actual receipts by each company during the last preceding 12 months for which records are available; that moving 12-month totals be used as records become available for each succeeding month, the proportion of orders given to the different companies to be adjusted in

(Please turn to page 80)



When you're in a hurry to make hay . . .

Fits any tractor — new or old

NEW IDEA Pull Type Rake

Saves You Time 6 Ways!

1. **It's pull type.** Hitch this NEW IDEA rake to any tractor draw bar with one pin and you're ready to go.
2. **It's a parallel bar rake.** Moves hay half the forward distance of conventional side rakes. Cuts raking time in half.
3. **One easy-to-reach crank** controls transport lift and raking height adjustment. Exclusive as standard equipment with this NEW IDEA pull type rake.
4. **Sealed, grease-filled gear box** for once-a-season lubrication. NEW IDEA rake has only two daily lubrication points.
5. **Tractor-seat clutch control.** Pull rope once to engage clutch. Pull again to disengage. Clutch is spring loaded to out-of-gear position for transport safety.
6. **Transport speeds up to 20 m.p.h.** Trails true in field or on highway. Short-coupled, trailer type construction also makes this NEW IDEA rake easy to turn, handle, and back up.

NEW IDEA pull type parallel bar rake handles hay gently . . . reduces leaf shattering . . . makes uniform, fluffy, free-breathing windrows. Lifts and rolls hay instead of tumbling it. The fixed relation between ground speed and reel speed assures gentler raking action at all speeds. Does the cleanest raking job you ever saw.

Full 8-foot width lets you rake 7-foot swath onto fresh stubble. at

speeds up to 8 m.p.h. Basket tilts to vary fluffiness of the windrow. Like all NEW IDEA equipment, this NEW IDEA pull type rake is built to give you years of trouble-free service. Also available as a mounted PTO-driven rake.

See this time-saving, crop-saving NEW IDEA rake at your NEW IDEA dealer's, or mail coupon below for free literature today.



NEW IDEA FARM EQUIPMENT CO. DIVISION **Arco** DISTRIBUTING CORP.
Coldwater, Ohio, U.S.A.

Please send free literature checked:

- | | |
|---|---|
| <input type="checkbox"/> Pull type parallel bar rake | <input type="checkbox"/> Semi-mounted mower |
| <input type="checkbox"/> Mounted parallel bar rake | <input type="checkbox"/> Full trailing mower |
| <input type="checkbox"/> Pull type rakes and tedders | <input type="checkbox"/> Hay conditioner |
| <input type="checkbox"/> Booklet "Tried and New Ideas for Making Hay" | <input type="checkbox"/> Harvester-Shredder, Flail type |

Name

Address

Town Prov.

SASKATCHEWAN
Grain Belt Farm Equip., Ltd.
1920 First Avenue
Regina, Sask.

ALBERTA & B. C.
Northwest Farm Equip., Ltd.
Cor. 7th Ave. and 6th St. E.
Calgary, Alberta

MANITOBA
Allied Farm Equip., Ltd.
980 Pacific Avenue
Winnipeg, Man.

New Idea Farm Equip Co., NEW HAMBURG, ONTARIO
Hall Mfg. & Cold Storage Co., Ltd., SUMMERSIDE, P. E. I.

FORMULA 5

HOUSE PAINT

won't blister on new wood



thank goodness

No! thank

MARSHALL WELLS



NEW! the exciting COLOR HARMONY "take home" BOOK!

See it at your MARSHALL WELLS paint dealer

Here's the **BIG** one

harvests up to
80 ACRES A DAY

the sensational *NEW*

CASE 1000[®]

Big grain growers and custom operators have long wanted a combine like this new Case 1000. It teams up *tremendous "Bonus Bushel" capacity* with *low operating costs* to bring new savings to large-acreage harvesting!

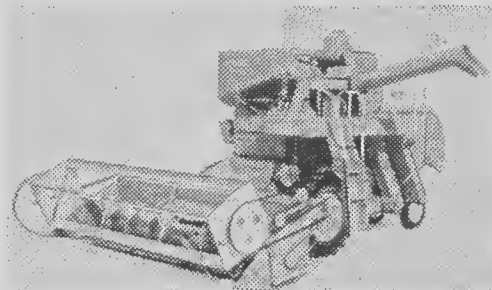
Giant 42" Straight-Through Body—With its 12, 14 or 16-foot header and 42" straight-through body design, the Case 1000 is built big for fast, acre-eating production. Its giant 42" cylinder is the largest in the field. And this new Case not only *fills* its grain tank fastest; it *unloads* it fastest, too! The 1000's big, 60-bushel tank empties in just 30 seconds!

New Handling Ease . . . New Threshing Efficiency—With the Case 1000, you get new unexcelled control convenience, too. You sit comfortably up out of the dust zone with a full view all around. The 1000's power steering gives you smooth, shock-free, *fingertip control*. New *hydraulic variable speed drive* provides a range of more than 100 forward speeds—from .6 to 16 MPH! And with the 1000's exclusive new "on-the-move" controls, you change cylinder speed and concave clearance right from the driver's seat, *without* stopping the combine!

Top Fuel Economy—The new Case 1000 is *powered* for savings. Its famous Case-built engine holds the world's record for fuel economy in official tests. Under normal operation, this dependable, fuel-saving powerplant should give you from 15 to 20 years' service without a major overhaul!

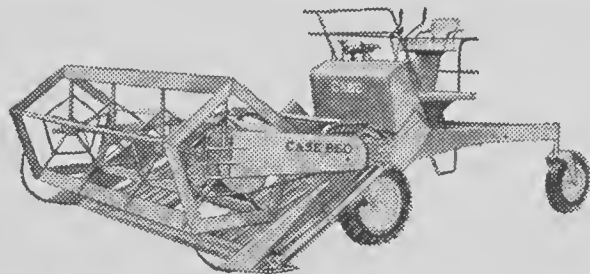
Your Case Dealer Has All the Facts—See your Case Dealer soon. He'll gladly give you complete facts on the Case 1000—*new harvesting king of the Canadian Prairies!*

Another new
CASE Combine
for medium and
large acreages...
CASE 800



Designed for medium to large acreages, the new Case 800 harvests up to 50 acres a day. Its 32" straight-through body is perfectly matched for either 14, 12 and 10-foot headers. Grain tank has full 45-bu. capacity, with optional bagger attachment. Available with gas, LP-gas or diesel engine.

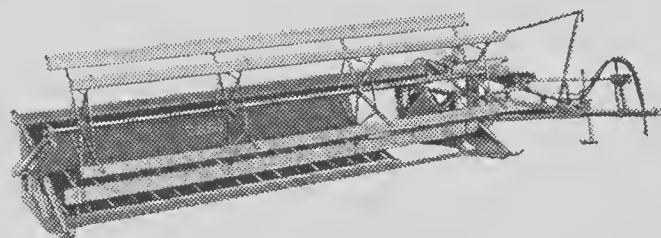
New CASE Windrowers give you top capacity for high-speed swathing



CASE 850 Self-Propelled Windrower

You can windrow up to 80 acres a day with this smooth-cutting Case 850*. Its heavy-duty sickle and guards are built to stand up under rugged service. Three-way power steering provides precise control. Header and reel are hydraulically controlled. Choice of Case A-125 or V-type engine and 10, 12, 14 or 16' headers.

Also available: CASE 820 SELF-PROPELLED WINDROWER for grain crops and hay. Powered by V-type air-cooled engine. Choice of 10, 12, 14 or 16' headers.



CASE 720 Pull-Type Windrower

Designed for larger acreages in 12' and 16' sizes, the Case 720 will cover up to 96 acres a day. It cuts all seed and grain crops. Lays on airy, fluffy windrow that stays on top of the stubble, yields most grain. Gives you hydraulic control of reel and platform from driver's seat. Sickle cuts at 540 strokes per minute with swaybar-type central sickle drive.

Also available: CASE 740 PULL-TYPE WINDROWER that cuts a full 12' swath. Easily changed cutting heights, from 2" to 18½". Four-way reel adjustment.

you've been waiting for!

HARVESTING KING
OF THE
CANADIAN PRAIRIES!



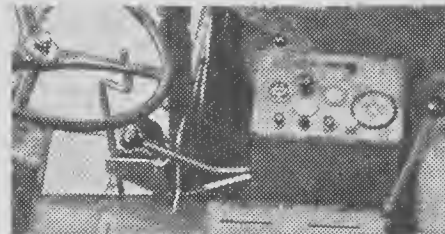
Only **CASE** gives you these "on the go" controls
for better harvesting, fewer stops.



CONCAVE CLEARANCE is easily adjusted from the driver's seat . . . lets you handle changing crop conditions without stopping. Handy concave drop-pin lets you clear the cylinder.



CYLINDER SPEED adjusts on-the-go—over the full range of 500 to 1300 RPM—without ever leaving the driver's seat.



TACHOMETER on instrument panel shows cylinder speed—at a glance. Lets you govern the load on the machine for increased threshing efficiency.

Thoroughly Proved in the Field

In actual field tests held throughout Western Canada last harvest season, the new Case 1000 proved itself Canada's fastest-harvesting, biggest-capacity combine. Working in the same fields with other combines, the 1000 rolled along up to 25% faster and picked up as much as an extra bushel of grain per acre! Its well-balanced threshing, separating and cleaning units did an excellent job on all kinds of grain and under all field conditions.

CASE SETS THE PACE
in BIG Combine All Crop Harvesting!

CASE

J. I. CASE COMPANY

Dept. CG, 17 Vickers Rd., Toronto 18

Please rush free literature on

☐ CASE 1000 Combine ☐ CASE 800 Combine ☐ CASE Windrowers

NAME _____ () Student

ADDRESS _____

Do you need a NEW TRACTOR?



... then talk to 'MY BANK'

If you need a new tractor on your farm, but haven't the ready cash to buy one . . . FIL may be the answer to your need.

A B of M Farm Improvement Loan can put you at the wheel of the latest model very quickly. And there's nothing that saves money, time and work on a farm quite so much as a modern tractor.

If your proposition is sound, you can get a B of M Farm Improvement Loan for any type of equipment you need on your farm. Why not talk to your nearest B of M manager? He'll gladly show you how a Farm Improvement Loan can help you in your operations . . . and how little it costs.



FIL the fixer . . .

his full name is Farm Improvement Loan. Give him a chance to help fix up your farm . . . he's economical, convenient, versatile. He can do almost anything in making your farm a better farm.



BANK OF MONTREAL
Canada's First Bank

WORKING WITH CANADIANS IN EVERY WALK OF LIFE SINCE 1817
D2019

WHY GAMBLE?

**Carlton is the only
plastic pipe guaranteed
and permanently identified
with a stripe**

Only a permanently identified product can be fully guaranteed. Carlton, the pipe with the stripe, is guaranteed forever against rust, rot, and electrolytic corrosion.

Backed by Canada's largest group of plastic pipe specialists, Carlton flexible pipe and fittings enable cold water systems, jet well installations, lawn sprinkler systems and industrial installations to be completed faster at a fraction of the usual cost.

All Carlton is made in Canada from top quality raw material in accordance with Government Specification No. 41-GP-5A. The complete range of fittings available make Carlton easy to install without special tools.

Insist on



THE PIPE WITH THE STRIPE

BEARDMORE & CO. LIMITED

37 Front St. E., Toronto, Ont.

1171 St. James Street W., Montreal, P.Q.

What Farm Organizations Are Doing

IFAP MEMBERS MEET IN MEXICO

The six North American member organizations of the International Federation of Agricultural Producers met in Ensenada, Mexico, for a 2-day conference in late March. Canada was represented by board members of the Canadian Federation of Agriculture.

The meeting had before it two papers prepared by the IFAP secretariat, one entitled "Integration of Agriculture in North America," and the other entitled "Commodity Developments."

As regards the first paper the meeting noted the tendency toward larger and more highly integrated production and marketing units in North American agriculture. It was especially interested in the spread of so-called "contract farming"; particularly in the livestock industries of the United States and Canada. It expressed the view that, while these developments facilitated the adoption of new and more efficient production and marketing techniques, there was a danger that they might lead to domination of farming by interests outside the field of agriculture. To deal with this matter the meeting resolved:

1. That these integration developments should, to the fullest extent possible, be carried on through the agency of agricultural co-operative organizations; and,

2. That every effort should be made to alert member organizations to use every means at their disposal, including government agencies, to explore the possibilities of producer-controlled integration and to put the information obtained into practical operation.

As regards commodities, the meeting devoted particular attention to the situations affecting wheat, cotton, and dairy products.

In the case of wheat, it was noted that, while international trade in 1958-59 promised to reach the highest level in history, it was probable that wheat exporting countries would carry the huge total of almost 2 billion bushels of old crop wheat into the 1959-60 marketing season. The meeting welcomed the conclusion of negotiations on a new International Wheat Agreement, and considered it would be a more effective instrument than the agreement it was designed to replace.

As to dairy products, special attention was given to the problem of excessive supplies of dry skim milk. The meeting resolved that concerted international efforts should be made to dispose of existing and prospective surpluses of milk products on a mutually advantageous basis, and that opportunities of such disposals should be explored and promoted under the auspices of FAO.

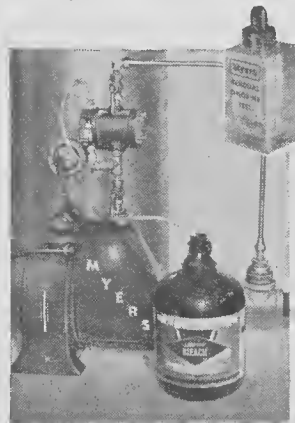
IFUC DISSATISFIED WITH HOG POLICY CHANGE

The Interprovincial Farm Union Council executive has expressed its concern about the apparent inconsistency of the Federal Government's declared intention to maintain the family farm by assisting farmers in realizing a fair return on their labor and investment, and the proposed methods of achieving this objective.

At a meeting in Saskatoon, April 17, the IFUC Executive recorded its opposition to the announcement made by Agriculture Minister Harkness that the support price for hogs would be lowered from \$25 to \$23.65, basis Toronto and Montreal, on October 1. The IFUC maintains this move will adversely affect the income of the family farm. It proposes, therefore, to present a memorandum on the subject to the Minister, and to seek clarification about future hog price policy.

(Please turn to page 82)

**NOW... a low cost
dependable way to get
safe drinking water**



Compact Myers Chlorinator gives you safe drinking water by using ordinary laundry bleach. Easy to install. Use on any farm water system.

Also solves red water and corrosion problems when used with polyphosphate material.

Mail Coupon Today for Illustrative Folder.

Name _____
Address _____
City _____ Prov. _____

The F. E. Myers & Bro. Co.
Dept. CF KITCHENER, ONTARIO

Myers

GUIDEPOSTS

UP-TO-DATE FARM MARKET FORECASTS

WHEAT EXPORTS in early April were some 10 million bushels below a year earlier. Marketings, however, were higher as wheat took over space left by smaller commercial supplies of oats and barley. This trend is likely to continue for balance of season.

EGG PRICES likely to show some seasonal strength, but will remain relatively low because of heavy supplies. Layers are at record levels and, though some are due for culling, rate of lay remains high.

BARLEY EXPORTS have slowed down after lively fall but may pick up again in months ahead as European buyers restock bins. However, competition from U.S. feed grains has increased considerably.

HOG PRICES will likely be at new floor of \$23.65 per cwt., basis dressed weight Montreal or Toronto, this fall. However, unless extreme drought hits prairies, feed prices should not increase greatly, leaving room for tidy profit for efficient producers.

APPLE PRICES will continue to be depressed, especially in Eastern Canada, by large stocks--some 55 per cent greater at March 1 than a year earlier. This reflects good crop and mediocre export markets.

OATS are mostly a domestic affair this year with export markets in doldrums. Farm stocks at end of March, though a quarter smaller than a year earlier, were only slightly below 10-year average. This should provide a good cushion in case of drought.

TURKEY PRODUCTION appears headed for another record this year and profit margins likely will be slim. With red meats priced relatively high, consumers will step up amounts eaten, but probably not enough to prevent low prices and a build-up of storage stocks.

AGRICULTURAL INDUSTRY weathered last year's economic slow-down in remarkable fashion. Consumers spent freely on live-stock products and this was reflected in much higher net income for farmers.

FLAXSEED PRICES now entering the season where weather scares will be big influence. Government policies, particularly in U.S., are tightening up free supplies of vegetable oils. Heavy feeding of high protein to livestock also has had beneficial effect on prices.

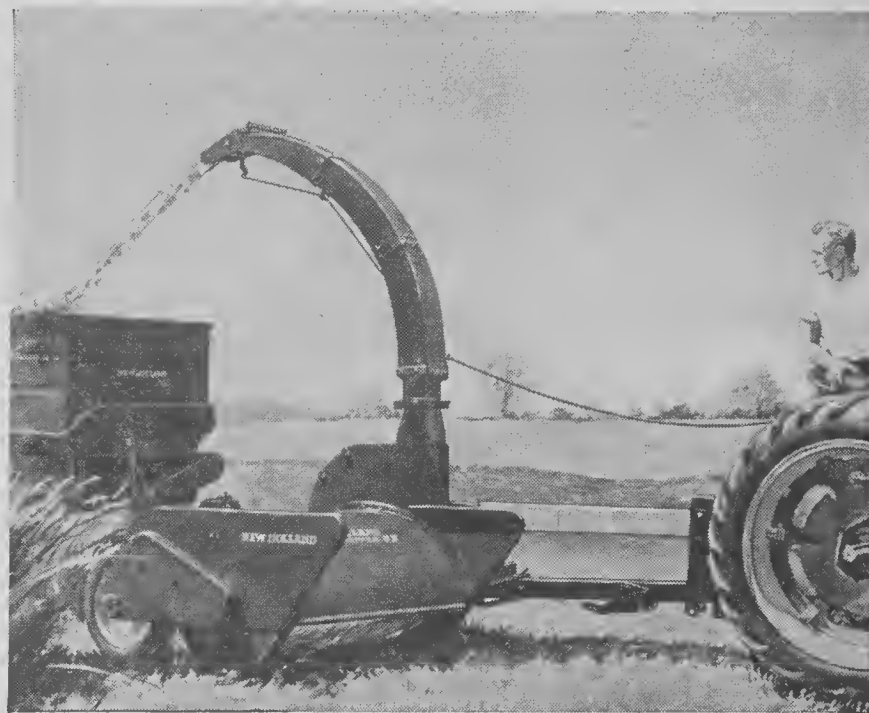
HAY AND PASTURE SHORTAGES in Prairies are distinct possibility this season. Two dry years have used up moisture reserves and less desirable native grasses will begin to take hold. Plan to supplement fodder with oats green feed if necessary.

POTATO PRICES could improve more than usual this spring and summer. U.S. growers have cut back sharply both early and late spring seedings. Large stocks of last year's potatoes, however, will need to be disposed of first.

Double-Chop, Clean-Chop!

DOES ALL THESE JOBS—FAST!

- | | | |
|--|--------------------------------------|--------------------------------------|
| Cuts green feed | Clears stubble, brush | Shreds orchard and vineyard prunings |
| Chops silage—grass, oats, peanut vines | Mows weeds | Clips pastures |
| Shreds and spreads cornstalks, cotton stalks | Tops beets, potatoes, sagebrush | Clips waterways |
| | Makes bedding of cornstalks or straw | Mulches orchards |
| | | Harvests mint |
| | | Chops flax |
| | | Cleans up rice stubble |



New Holland Model 33 Crop-Chopper Harvests your crops fast—brings you big savings in money and labour!

See New Holland's new Crop-Chopper with **Double-Chop, Clean-Chop** action—the most advanced, most useful economy chopper ever offered!



EXCLUSIVE CURVO-THRUST CUTTERHEAD has cupped paddles that assure more positive throwing action and even distribution of material throughout the wagon. Its recutting knives assure finer, double-chopped material.

First, 32 free-swinging knives cut standing crop and windrows and deliver the material to a 12" auger in one smooth operation. Then the auger carries it to the exclusive Curvo-Thrust cutterhead, where the material is recut into finer pieces. Finally, the cutterhead's exclusive cupped paddles blow the silage out of the discharge spout, quickly filling every corner of the trailing wagon.

Look behind you and admire that uniformly cut field and the fine-chopped load. Ahead you'll see years of trouble-free operation with the New Holland "33".

See it in action now. New Holland Machine Company (Canada) Limited, Brantford, Ontario.

NEW HOLLAND

"First in Grassland Farming"

*Tear out
coupon now—
Mail today!*

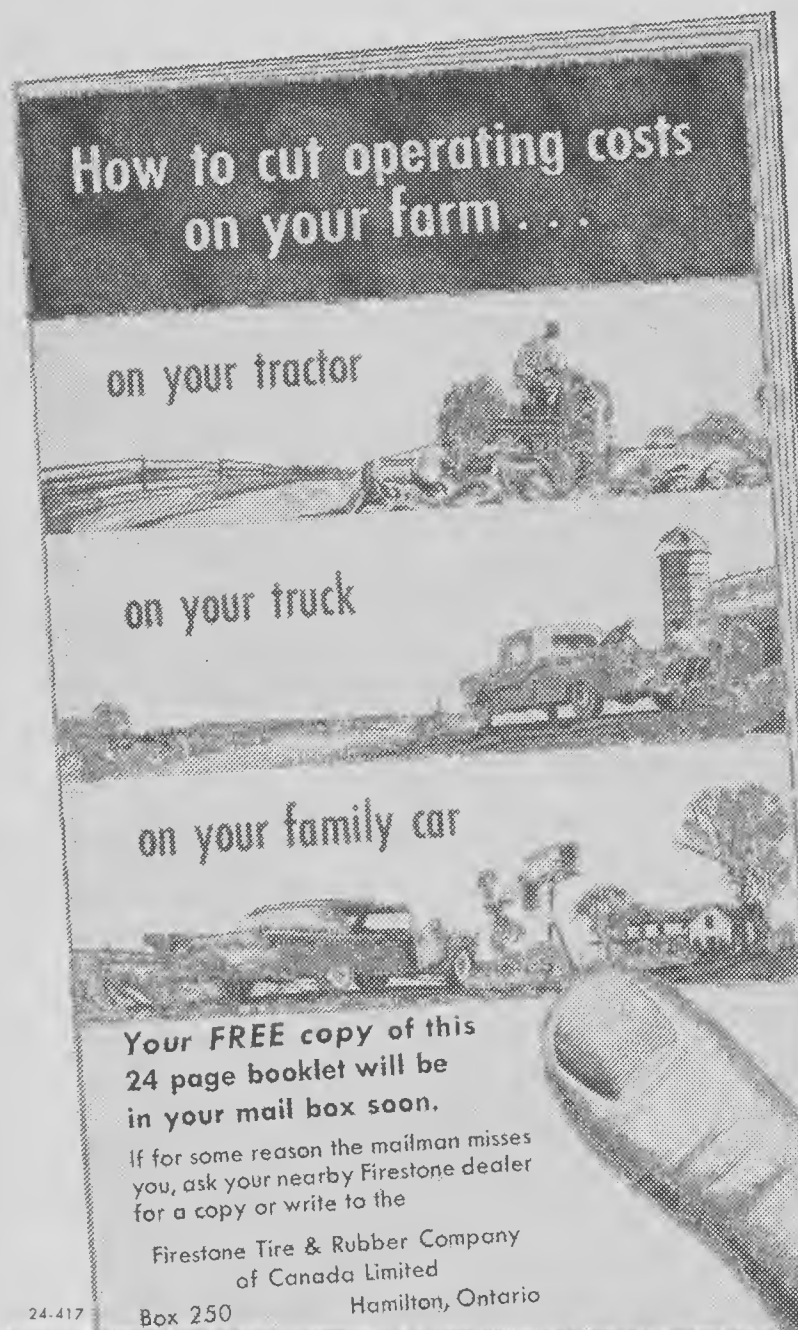
New Holland Machine Company (Canada) Limited,
Brantford, Ontario

Please rush me
complete information
on your Model 33
Crop Chopper

Name.....
Address.....
.....
.....

Looking for ideas to reduce your costs?

This **FREE** 24-page **FIRESTONE FARM BOOKLET** will help you!



Here are a few of the topics:

- How to make your machinery investment pay
- Implement adjustment tips
- How to get maximum efficiency and economy from tractor tires

- Which truck will best suit your needs
- How preventive maintenance saves money
- Truck tire maintenance and selection

- How good driving pays off in economy and safety
- Tips on buying car insurance
- A handy tire cost record

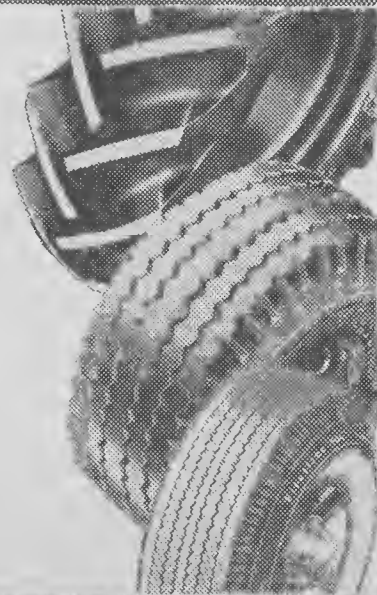
Firestone **FARM TIRES** keep your tire costs low!

Firestone put the farm on rubber and ever since has led in the development of farm tires that make your job easier and more profitable.

Two recent examples of this well-earned leadership are Firestone Rubber-X, the longest-wearing

rubber ever used in Firestone tires and "Shock Fortified" cord for extra protection against costly tire damage.

Use the *best* tires on your farm! Always specify *Firestone* when you buy new equipment or replacement tires.





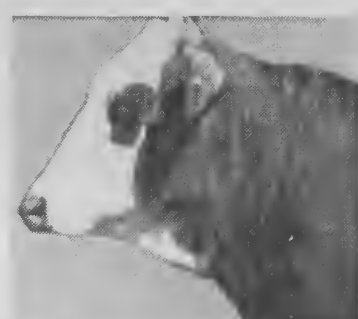
BRANGUS
*Brahman x Angus
from Oklahoma.*



SANTA GERTRUDIS
*A pure breed from
Brahman x Shorthorn.*



CHAROLAIS
*Originally French, little
or no Brahman blood.*



BRAFORD
*Brahman x Hereford
frequently has white face.*



CHARBRAY
*Brahman x Charolais
developed in Texas.*



BEEFMASTER
*Brahman x Shorthorn
and Hereford.*

The American Beef Breeds

Why haven't we learned more about them?

by **CLIFF FAULKNER**

CANADIAN stockmen are the target of a stepped-up sales campaign to popularize the new American beef breeds in this country. Part of the reason for this is that a lot of cattlemen here are becoming dissatisfied with the stock they have, and are shopping around. Some of these new breeds could be what they're looking for—more beef per pound of feed—others might land their owners in the poorhouse. How is a prospective buyer to tell, except by costly trial and error? About the only information he has to go on are the claims of those with bulls to sell, and these might just be a little biased.

In 40 years of testing, it is pretty evident that the buffalo belongs at the park, not at the packers. We know what buffalo crosses won't do. Let's find out what the Brahman strains will do. Sure, they make dandy gains in Arizona and New Mexico, but how will they make out in Alberta or New Brunswick? We have cereal labs and poultry testing stations, so why haven't we been testing these new beef breeds for gainability, feed conversion and winter hardiness? Stockmen want to know about the latter before they buy, not after the first heavy blizzard.

The need for such information was officially recognized as long ago as June 1948, when a resolution urging that a study of American breeds be undertaken was passed at an Animal Husbandry Conference held at Winnipeg. Acting on this resolution the following spring, the Government sent a team of two experts—one from Ottawa and the other from Swift Current—on a 1,400-mile tour of the southern and western United States to determine the value of these cattle for the Canadian beef industry. After this study was made, two detailed reports (giving numbers of livestock needed and the costs involved) were submitted to Ottawa, recommending an economical plan to test these new breeds under Canadian conditions. Commercial stockmen, who could use this information right now, might well ask the question: why weren't these reports acted on?

LET'S have a look at some of these new breeds. Most popular here, and possibly the one best suited to Canadian conditions, is the American Charolais. This was developed from an ancient breed which originated in the hilly province of Charollais, in Central France. In 1930, about 40 head of these cattle were imported into Mexico, from where most of them found their way to the Fred Turner ranch at Weslaco, Tex., and became

the nucleus of the breed now known as American Charolais.

In theory, this breed was produced by crossing "pure" Charolais bulls with cows of any of the British beef breeds. After five breedings, this produced the American Charolais, which was actually 31/32 Charolais and 1/32 of whatever British breeds were used.

In practice however, it's more than probable that other breeds, such as various Brahman strains, have also been used. Under the rules of the American-International Charolais Association this is quite allowable, as long as the cattle used belong to a recognized beef breed. Whatever its genetic make-up might be, the animal now considered a "pure-bred" Charolais is the only one of these new American breeds which carries little or no Brahman blood.

The word "Brahman" is a collective name given to the humped cattle (Zebu) imported into the United States from India in 1906, and from Brazil in 1924. Since then, these cattle have undergone a good deal of selection and improvement, resulting in a big, rugged, intelligent animal which is able to survive under severe drought and heat. Brahman cattle are also more resistant to flies, pinkeye and cancer eye than are the British breeds, and their dressing percentage is higher.

Although not considered a true beef breed by many cattlemen, the Brahman is known for its

ability to impart hybrid vigor when crossed with other breeds. The resulting offspring grow faster and better, especially under conditions where grass and water are in short supply. At cattle auctions in the south, condition of the animals is notably better when Brahman blood is present, and the cattle bring a higher price. However, their record in the feedlot has been variable—some good results and some bad—and there is some doubt about their ability to stand low temperatures.

Although Brahman crossbreds produced at the Range Experimental Farm, Manyberries, Alta., far outweighed control animals of the British breeds at birth, and weaning and 2½ years of age, purebred Brahmans didn't appear to be adaptable to Canadian range conditions. About 15 years ago, the Streeter Brothers, Stavely, Alta., brought in some Brahman bulls for crossing purposes. They found the crossbreds didn't stand up to Foothill ranch life, and haven't many of them left. They also took a bit of a discount when it came to selling the animals because of packer discrimination.

The American Brahman has produced some promising crossbred types which might develop into breeds, as well as one distinctly new breed. These are the Charbray, Brangus, Beefmaster and Braford, and the new breed is the Santa Gertrudis.

The Charbray (about five-eighths Charolais and three-eighths

(Please turn to page 52)



A Brahman bull with some Angus cows. The Brangus is three-eighths Brahman and five-eighths Angus.



Dave Froebe is chairman of Canadian Sugar Beet Producers' Association.

Does It Pay To Grow Sugar?

Our Field Editors discover that many of the old obstacles to economical sugar beet production are being swept away

THERE'S a lot to be said against sugar beets. They are a high-cost crop, both in terms of labor and equipment. They are a bulky crop to haul, usually the sugar content is about 15 to 17 per cent, and they take literally thousands of tons of earth with them each year. Their value is set by the world market, which is based on sugar cane produced mostly by cheaper labor. Beet sugar is also a victim of the mistaken view that it is inferior to cane sugar.

When all this has been said, the fact remains that some farmers find sugar beets a very rewarding crop, and for still more they are providing a relatively stable source of income. Furthermore, they tend to raise farming standards by encouraging good rotations and sound cultural practices.

The practice of sugar companies negotiating contracts with provincial growers' organizations is well established in this industry. The contracts give the companies control over the allocation of beet acreage to farms, based on market prospects. They also supply seed and fertilizer, and lay down the seeding rates, fertilizer recommendations and other cul-

tural practices to be followed by the grower. In return, the grower has a guaranteed market and payments based on a percentage of the selling price of the sugar. Manitoba growers, for example, receive 62½ to 63 per cent of the net return from sugar sold, including an initial payment of 75 per cent of the estimated final value of the beets, subsequent payments around February and June of the following year, and the final payment when all sugar and by-products (pulp and molasses) are sold.

This arrangement has been quoted as a classic example of contract farming, and although individual farmers might wish they could increase their acreages, especially when they become expert in handling the crop, there seems to be no evidence of real dissatisfaction with the conditions.

Another factor in the sugar beet business is the support price set by the Agricultural Stabilization Board. This is approximately 93 per cent of the 10-year average gross return per pound, and varies for the three major producing areas. There seems to be no doubt that this is encouraging a return to beet growing in Ontario, where there has been a history of sharp decline followed by an increase that has not yet equalled the productive capacity of the sugar refineries.

Sugar Beet Acreage in Major Producing Areas

Ontario. Acreage has been building up and reached 32,000 acres in 1958. Contracts may cover 40,000 acres this year. Yields averaged 14.65 tons of 15.9 per cent sugar per acre in 1958.

Manitoba. Harvest from 23,000 acres in 1958, but contracts cover 26,600 acres this year. The average yield was only 8.9 tons per acre in 1958, but sugar content rose to 17.3 per cent.

Alberta. Last year's planting of 38,308 acres is expected to be about the same in 1959, or possibly slightly less. The gross yield was 601,200 tons in 1958, giving an average yield per acre of 15.7 tons.

DAVE FROEBE of Homewood, Man., recently re-elected chairman of the Canadian Sugar Beet Producers' Association, says a man needs an iron constitution to stay with beet production. The ups and downs in yield and quality mean that some producers lose money, but the man who can keep his average yield above the local average is the one who reaps the financial advantage.

He reckons that beets demand a higher cost per acre than any other field crop, but the interim payment system, which puts money into the grower's hands when he is most in need of it, can make him overlook the actual cost. An average farmer with 40 acres of beets spends \$25 per acre for labor alone from seeding to harvest. His total cost is around \$100 per acre, including trucking the crop.

A special feature of beet growing, says Dave, is the long-term planning involved. In Manitoba, they started to prepare summerfallow in 1958 for



[Guide photos]

John Van Raay is using a modern precision drill for the sugar beets on his farm at Merlin, Ont.

the 1960 crop, but had no idea what market conditions would be like when they harvested it. Even then, it is usually 20 months from the time the seed is planted until the sugar is sold and the final payment can be made.

Dave Froebe has a 3,000-acre farm, with 200 acres in sugar beets, and gets a crop about 50 per cent higher than the Manitoba average of 9 tons per acre. The Alberta and Ontario averages are somewhat higher, but not necessarily more profitable, as the cost of irrigation, the price of land and other factors enter into the reckoning.

While it is true that a beet grower can be losing money without realizing it until it is too late, the other side of the picture is given by Lawrence Kerr, who farms in the Chatham cash crop area of Ontario. He says that on his farm there is 15 to 20 times more profit in sugar beets than in soybeans, and almost double the profit he has from corn. He had a record crop of 23.94 tons per acre last year, but it happened as a result of progressive improvement over a long period. This underlines the need to take infinite pains to get the best out of beets.

THE principal sugar beet areas are in southern Alberta, southern Manitoba and western Ontario. Some is grown in Quebec, and seed is produced in British Columbia. The plant is generally cross-pollinated and bears its tiny seeds in groups of three to five embedded in a cork-like substance. Beet varieties producing this type of seed are called "multigerm," because they send out three or more plants from each seed.

A most interesting development in sugar beets is the "monogerm" type, or one plant from one seed. A monogerm variety was found in a field of commercial beets in Oregon. It reproduced itself and all present monogerm varieties stem from the Oregon discovery. Wesley Smith, who is in charge of the Canadian Sugar (Please turn to page 48)



This mechanical beet harvester on a farm at Taber, Alta., tops, digs and loads them in one operation.

FARM POLICY—

Now and in the Future

A leading farm economist believes Canada should retain policies to increase productivity and provide stability, but should develop new policies to meet surplus problems

by **DAVID L. MACFARLANE**

THE great difficulty with agricultural policy is that almost every bright idea for improving the position of the farm industry carries with it secondary effects which may worsen the general position of the industry, or some segments of it, or of some other group in the economy.

Let's explore the idea. Over the past 30 years we have seen in many countries positive and fairly aggressive measures to support agriculture—price supports, production controls, state intervention in marketing, government provision of farm credit, rehabilitation schemes, crop insurance, and so on. But financial returns per farm worker have seldom, if ever, risen to a level comparable to those of non-farm workers. The general tendency is that in depression or recession periods, returns to farmers drop to the range of one-third to one-half of those of city workers; in periods of prosperity farm returns may rise to two-thirds or three-fourths of equivalence. But they never reach the same level.

Why? The demand for farm products grows slowly—a little faster than population. Technology on the other hand advances more quickly and brings increases in output beyond the ability of the market to absorb. Adjustment of farm production to this situation tends to lag despite a 40 per cent reduction in the number of workers in Canadian agriculture over the past 20 years.

During this 20-year period the amount of farm machinery at the command of the agricultural worker has increased four to five times. Significant advances have been made by the introduction of rust resistant wheats; valuable hay and pasture crops have been adapted to our north temperate climate; new hybrids and new machinery have brought commercial corn grain production to Canada. These developments have been paralleled by greatly increased knowledge of the value of fertilizers, and by striking advances in chemicals for controlling weeds, insect pests and plant diseases.

Taken together, all these developments have almost doubled the output per worker in the past 20 years—faster than any major Canadian industry. These rapid shifts suggest that far from being an intractable industry subject to little change, agriculture has the capacity on the production side for rapid change. Such capacity will be most important over the next generation.

From these facts it should be more than evident that the farm industry is struggling in positive terms with the problem of adjusting output to demand—and with the problem of securing improvements in efficiency. It could have at least been hoped that these very substantial changes in the structure and practices in the farm industry would be accompanied by a relative improvement in the financial position of farmers. But it hasn't. Thus it is fairly safe to conclude that the major economic problems of agriculture lie beyond the boundary fences of the individual farm and, in fact, in the operation of the market economy.

POLICY IN THE PAST

IN the context of the actual or threatened surplus situation, accompanied by low financial returns which has been developing over a period of 20 to 30 years, what has been Canadian farm policy?

One measure was to make increased public expenditure on research which inevitably created still more production. Another policy line has been to

extend publicly financed farm credit, which has made access to the industry relatively easy. Still another is represented in the use of public funds on the Prairie Farm Rehabilitation and Maritime Marshland Rehabilitation programs. These good works also add to production.

We have also employed price supports and crop insurance, and though this was not their intention, these too have resulted in further expansion in farm output. This takes us back to the idea presented in the first paragraph. Almost all policy measures we have employed, and even the additional ones we



Dr. MacFarlane, professor of agricultural economics, Macdonald College, McGill University.

consider using, add to production—and of that, we already have too much!

This is not to suggest for a moment that we should not support research; nor that we need less rather than more price and income stability in our farm economy. My opinion is that we have spent too little on agricultural research and too little on such measures as farm rehabilitation and crop insurance. But it must be acknowledged that success in increasing farm production creates difficulties in disposing of farm products. This paradox is especially difficult since we cannot face the thought of putting technology in moth balls. We must continue to encourage advances in farm production even though they create grievous problems for us.

In a purely economic sense there is a way out of this paradox. It is provided by the fact that technological developments in agriculture tend to require large amounts of capital. This means large farm units, more highly capitalized farm units, and achievement of far greater output per worker in agriculture. Individual farmers who achieve efficiency in this sense may be assured that for them the marketing problems created by more production need cause no concern. The wheat farm organized on the basis of annual production of 6,000 to

10,000 bushels per man, or the dairy farm which has production of more than 200,000 pounds of milk per man, generally has the overall efficiency to yield a good living, even with today's prices.

The result of policy in the past and of the operation of our enterprise economy has been that the large farm units (highly capitalized) have been able to make moderate to quite satisfactory returns. The largest 15 per cent of our farms produce more than 70 per cent of the products marketed, and secure an even higher proportion of net farm income. Thus we may conclude that farm policy has favored these operations.

Policy has also left relatively untouched by its influence the small, the subsistence, and the part-time farm. These now represent a *social*, in contrast to an *agricultural*, problem. We deal with this through family allowances, old age pensions, hospitalization, medical schemes and so on. These have been very helpful and we may expect that as the country becomes richer such supports will become more generous. What is important is that we recognize the fact that the farm policy measures employed to the present time—research, credit, rehabilitation, price supports and crop insurance—make almost no contribution in the direction of dealing with poverty in agriculture.

FUTURE POLICY?

WHILE we should give no thought to abandoning policies which increase productivity (research, credit, rehabilitation, etc.), or those which add a measure of stability (price supports, crop insurance, etc.), we should at the same time explore every possibility of guiding farm policy in directions which face up to the actual and threatened surplus situation.

Land Use.

Perhaps the line of action which would be most consistent with this standard is one for adjusting or rationalizing the use of land occupied by small unproductive farms. This would involve transfer of farm land of low productivity to other uses, or to the public domain; it would involve assistance in moving farm people from poor land to other occupations; and, finally, it would involve directing public credit specifically toward assisting in the consolidation of small farm units.

A Senate Committee has been working on this problem for more than 3 years. It is to be hoped that the Committee is proceeding with comprehensive studies which will not only provide the theoretical guides to an improved land-use policy, but the factual land-use mapping and economic studies which would indicate where adjustments could most advantageously be made.

Diversion of Funds.

Last year the federal government spent \$166 million on agriculture; the provinces likely spent an additional \$100 million. Most of the federal expenditures and some of the provincial went into programs which may in no respect have improved the long run basic strength of the agricultural industry. If it is agreed that land-use programs might fall in another category, they should be vigorously pursued. Some of the present expenditures on agriculture could profitably be diverted in that direction.

(Please turn to page 73)

RUSSIAN WILD RYEGRASS

Dryland Pasture Crop for Loam and Clay Soils



This Russian wild ryegrass shows a basal leaf growth.

by **TOM LAWRENCE**

*Research officer in charge
of grass breeding and seed
production at the Swift
Current Experimental
Farm, Sask.*



In a spaced nursery, after 14 years, these Russian wild ryegrass plants (right) are still intact, while crested wheatgrass plants (arrowed left) are dying from the central crowns. This is an indication that Russian wild rye lives longer.

CONSIDERABLE publicity on Russian wild ryegrass has been appearing in the press since last August. This paper was prepared to make the known facts available to those who are interested in growing and utilizing this grass.

Russian wild ryegrass is a long-lived perennial bunch grass which does well on the loam and clay soils of the open prairies, but appears to be difficult to establish on sandy soils. The leaves of this grass are mostly basal, indicating its suitability for pasture rather than hay usage.

Russian wild ryegrass, introduced from Siberia in 1926, was first grown at the Swift Current Experimental Farm in 1936. Subsequent testing showed this grass to have a com-

paratively high protein content in the late summer and fall, and good curing qualities which make it especially useful for late summer and fall grazing.

By 1950 seed production research at the Swift Current and Lacombe Experimental Farms, and the Forage Crops Laboratory at Saskatoon, had shown that commercial production of Russian wild ryegrass seed was feasible. In the same year seed was distributed from Swift Current to 16 prospective growers, of which one grower, James Farquharson of Zealandia, Sask., still has the original plot and harvested seed from it this past summer. In 1954 three brothers, John, George, and Robert Williamson of Pambrun, Sask., went into a fairly extensive seed production enterprise

with this grass and have been very successful. Other large scale seed producers in Saskatchewan are Doug Barton of Beechy, and B. Heinrichs of Fiske.

COMPARATIVE tests conducted across the prairie region in the past 15 years have proved the value of Russian wild ryegrass as a pasture crop. The average dry matter yield in pounds per acre for 12 tests at 5 stations was 2,449 for crested wheatgrass, and 2,516 for Russian wild ryegrass. The average protein yields for the same tests were 342 pounds per acre for crested wheatgrass, and 374 for Russian wild ryegrass.

Palatability ratings on a number of tests have shown a decided animal preference for Russian wild ryegrass over brome and crested wheatgrass. The respective comparative use in one test was 90, 70, and 55 per cent for the above grasses. In a test conducted at Swift Current in 1958, in which sheep grazed a number of grasses in late summer (August), the following comparative ratings (in per cent usage) were observed: Russian wild ryegrass 100, Summit crested wheatgrass 90, Nordan crested wheatgrass 75, brome 65, slender wheatgrass 60, Fairway crested wheatgrass 55, and tall wheatgrass 50.

SHEEP grazing trials being conducted at the Swift Current Experimental Farm are pointing out that good fall gains can be obtained from a Russian wild ryegrass-alfalfa mixture. While sheep only maintained their weight from September 1 to October 15 when grazing on crested wheatgrass-alfalfa or intermediate

wheatgrass-alfalfa mixtures, they made gains of 7 to 8 pounds per animal (50 per cent more than the average yearly gain on other mixtures) during this period on a Russian wild ryegrass-alfalfa mixture.

This significant gain may be attributed to the comparatively better nutritive value of this grass in the fall. Chemical analysis of these grasses in the fall have shown Russian wild ryegrass to contain 7.3 per cent protein, while Fairway crested wheatgrass and intermediate wheatgrass contained 3.1 and 3.2 per cent protein respectively.

Although the above mentioned test of three grass-alfalfa mixtures has shown a Russian wild ryegrass-alfalfa mixture to be particularly good for fall grazing, the same test indicates that this mixture makes an excellent year-around pasture for continuous grazing. Sheep gains on the three mixtures under continuous grazing averaged 14 pounds per animal per year for both the crested wheatgrass-alfalfa and the intermediate wheatgrass-alfalfa mixtures, while gains on the Russian wild ryegrass-alfalfa mixture were 21 pounds per animal. When grazed in rotation, crested wheatgrass-alfalfa in the spring, intermediate wheatgrass-alfalfa in the summer, and Russian wild ryegrass-alfalfa in the fall, the sheep gains were also 14 pounds per animal. This would indicate that a continuously grazed pasture sown to Russian wild ryegrass-alfalfa was superior to any other mixture or combinations of mixtures for dryland pasture usage in the brown and dark brown soil zones.

(Please turn to page 75)

Dr. Lawrence says, of Russian wild ryegrass:

- ✓ The leaves are basal, so it is better as pasture than as hay.
- ✓ It has a comparatively high protein content in late summer and fall.
- ✓ Dry matter has averaged 2,516 lb. per acre in Prairie tests.
- ✓ Animals have preferred it over brome and crested wheatgrass.
- ✓ In continuous grazing, Russian wild rye with alfalfa was superior to any other mixtures for dryland pasture in brown and dark brown soil zones.



Two Ways To Finance Hogs

These Ontario farmers chose different methods, but both have been able to go heavily into hogs

by **DON BARON**

Credit from Feed Companies

ERLAND DYMENT is one salesman who practices what he preaches. He grew up just down the road from his present 26-acre farmstead at Norwich in Ontario's Oxford County. Before he bought his present place, he tried his hand at carpentry, worked as a hired man, and finally got a job as a hog and poultry equipment salesman. He still has the job, but now he not only advises customers on how to set up efficient poultry or hog enterprises, he can actually show them just what he means.

Dyment has been growing 6,000 turkeys for several years. Last fall, he remodeled the main floor of a 40' by 150' turkey house to accommodate pigs. He feeds 720 hogs at a time there now. They are crowded in like passengers in a rush-hour street car. But he has kept them dry and warm and healthy all winter—and they require only about 2½ hours of work each day.

This hogman wanted warmer winter quarters for his hogs than an open-front pen would provide. He cleared the turkeys out of the ground floor of the building and began remodeling. He laid out a 54" alley down the center, and divided each side into 12 pens of two sizes. Six of them measure 8' by 16', and handle 30 weanling pigs each. The remaining 6 pens on each side are 16' x 32'. They are used for the pigs as soon as they outgrow the smaller pens.

Feed is stored above the hog pen. It is dumped down a chute into a feed cart—an ingenious home-made one with an electric-powered auger unloader.

This enables the feed hoppers to be filled mechanically. To complete the mechanization of his feeding program, Dyment intends to install two 10-ton steel bulk bins at the end of the building to handle the growing and finishing rations. The bin that has already been installed can then be used for starting rations.

For ease of cleaning, Dyment installed a mechanical gutter cleaner around the perimeter of the building, just inside the wall. Manure from each pen is swept into the gutter daily, and fresh bedding is then provided. The gutter cleaner loads the manure spreader parked out at one end of the building. The gutter is only 5" deep, so that the weaners won't travel from pen to pen.

The daily cleaning solves the moisture problem, so dust is his main concern. To exhaust the dust, and assure a 50 to 55 degree temperature, he installed three 30" fans along one side, which are rated to draw about 10,000 cu. ft. per minute.

DYMENT'S management program works like this. He buys about 250 weanlings weighing 35 to 40 lb. every 2 months, usually getting them at local sales barns where he won't have to dicker over price, and where he can pick and choose among lots being offered.

On arrival at the farm, the pigs are inoculated for shipping fever and pneumonia, sorted for size, and then put into the small pens. They are starved for 12 hours. They then are given 1 lb. of oat chop each, before being (Please turn to page 54)



[Guide photos

Erland Dyment uses light plywood panels to control movement of hogs from small to larger pens.



Feed drops from overhead storage into feed cart and here it is being augered into self-feeders.



Schiedel's wagon augers feed into the hoppers, which can be filled also by the feed mill truck.



Hinged partitions make the drive-through alley, which is cleaned out with tractor and fork-lift.

Producing Under Contract

DAIRYMAN Dick Schiedel was faced with the need to expand his farm operations last year. He had a 150-acre farm, a 40-cow dairy herd, and a fluid milk contract. But he is a member of a farm management association too, and his books are analyzed each year by specialists at the Ontario Agricultural College. The books told him that he required more income. He knew without looking at any books, that the dairy herd required more work than he could handle comfortably himself. But it didn't justify hiring another full-time man.

Schiedel's farm is located at Preston in intensively-farmed Waterloo County, Ont. — an area where extra land is costly or unavailable. Even if he could increase his acreage, his fluid milk contract wouldn't justify expanding his herd. He had to look elsewhere. And he turned, where many other Canadians have been turning in recent months—to pigs.

Schiedel did something else that more and more farmers are doing these days too. He decided he couldn't afford to start off with just a few pigs. He saw the need for satisfactory accommodation, if he hoped to do well. To pay for that accommodation would take more than a few dozen hogs. So he built a barn to handle 500 of them.

Since he had started in a big way, without sufficient amounts of either money or know-how to do the job, he made another important decision. He tied himself to a contract.

This means that a local feed mill and farm supply firm buys hogs and delivers them to him. Then,

it provides the feed. It also has a service man available to direct the management program, and to help if Schiedel gets into any trouble. And after the first few month of the program, Schiedel likes it fine.

"Some day I'll buy my own hogs and control the enterprise myself. But until I get more experience and build up my capital, I'll stay with this arrangement."

KEY to Schiedel's volume program is his new building. He located a picture of the type of building he wanted in a farm magazine last fall. He drew up a set of rough plans of such a building, adapting them to meet his own needs. He was pleasantly surprised when the quoted price given by a builder was comparable to the price of an open front building. He had it built this winter. He calls it "a 365-day building—one where I can start pigs any day of the year."

In effect, it consists of two pole barns set back to back to form an 80' square building. The cost, including all equipment, came to about \$7,400. In it, one man can look after 500 pigs in about 2 hours each day.

Each pen measures 16' by 35'. The cement floor slopes down each way from the center alley, to the clean-out alleys along the edges. Pens are cleaned daily. Baled straw is stored on racks along the center alley.

Now that Schiedel's new hog enterprise is underway, he has a new hired man as well. If all goes well, he hopes those hogs will help his books to tell a better story in future years.

Are farmers really losing control of their operations?

A SECOND LOOK AT CONTRACTING

... suggests that it is only one aspect of the technological revolution in agriculture. While it creates both opportunities and problems, there is little evidence to indicate that off-the-farm interests are taking over the production function

CANADIAN farm people and their organizations have been plagued with a larger number of more serious problems over time than perhaps any other major industry in our society.

Some of these problems have been chronic, such as those of production, price and income instability, disparity between farm and non-farm income, and submarginal farms. Other problems have been acute for relatively short periods of time, such as the outbreak of foot-and-mouth disease in our cattle population a few years ago. Still others, which have become acute more recently and threatened to become chronic, are the cost-price squeeze and supplies of some farm products in excess of effective demand for them.

With marked advances in farm mechanization, technology and science, with lagging world markets for farm products, and with a growing interdependence between farm and off-farm businesses, these and numerous other problems have grown in the past few years in complexity and severity. In general, the variety and complexity of the problems confronting agriculture have confounded the most knowledgeable people in the industry.

Then, along about 2 years ago, as if farm people didn't have enough to contend with, they began to hear about what was considered to be another serious problem—a trend to vertical integration and contract farming. And while these weren't new forces at work even in agriculture, they were new terms which had received very little application previously. What was actually happening was that they were being used to describe various, new arrangements between livestock and poultry producers on the one hand, and supply, processing and retailing firms connected with providing off-the-farm supplies and services on the other.

Some people immediately saw vertical integration and contract farming as a development which they thought could readily lead to farmers losing control over their own businesses. They began to say the trend, which first appeared in broiler production, if it spread, was going to wipe out the family farm; it was going to reduce the farmer to a wage earner status or something worse; and, in the end, it would result in farm output being produced on a relatively few corporation farms. These were alarming and very disturbing conclusions. It is little wonder that discussion of this subject swept through the country!

In March of last year we carried a fairly complete introduction to contracting, including a summary of suggested advantages and disadvantages, examples of what was taking place in various parts of Canada, and some observations as to steps farm people might take to protect their interests. Since that time attempts have been made to keep our readers abreast of further developments as they

by **LORNE HURD**

occur. We do not intend to repeat in this article the information presented previously. Rather, what we hope to do is to bring our readers a further and somewhat more analytical report on the subject now that it has been studied and is better understood.

Only Part of the Trend to Bigness

Everyone is aware that tremendous changes have been taking place in the farming industry since World War II. These have largely been brought about by changes in the techniques of production employed on farms.

Tractor and electric power have replaced horse power and much manual labor. Labor-saving equipment and machinery have been utilized on farms at a steadily increasing rate. Farmers began to use increasing amounts of commercial fertilizer. They greatly expanded their use of insecticides, fungicides and weed sprays. More and more of them began to use artificial insemination, cross-breeding, antibiotics, performance testing and other innovations to upgrade their livestock and increase efficiency. They built new types of farm buildings so they could handle more livestock with less labor. In general, mechanization and technological changes together made farming a much more commercialized operation than formerly, with a growing interdependence on the rest of the economy.

As a result, between the 1941 and 1956 censuses, while the area of occupied farm land remained relatively constant, the number of farms in Canada declined by 21 per cent and farm size increased nearly 28 per cent on the average. During the same period, while there was a drop of more than 40 per cent in the farm labor force, there was an extraordinary increase in farm productivity. According to the Gordon Commission production per man-hour in agriculture increased about 6 per cent per year between 1946 and 1955, compared with 2.5 per cent in industry.

The point we wish to make is that the trend to fewer, larger and more efficient farms in Canadian agriculture was clearly established before any of us ever heard about vertical integration and contracting in the livestock industry. It is not possible, therefore, to reason that these new forces are the cause of the fundamental changes which are currently taking place in farming. The part they tend to play is to expedite the trend to "bigness."

Incidentally, this trend to larger farm units is described in economic terms as one example of *horizontal integration*. In other words, a farmer who expands his livestock herd or poultry flocks, or

acquires land from his neighbor, is said to be expanding his farm enterprise horizontally.

They're Not the Same Thing

Those who have written and spoken about these new forces in the livestock and poultry fields have all too frequently, in our opinion, created the impression that *vertical integration* and *contract farming* are one and the same thing. Actually, thoughtful scrutiny shows that they have some quite distinctive characteristics.

These distinctions were drawn out in a paper presented at the University of Manitoba Conference Week Sessions for Farmers and Homemakers in March, by Dr. R. Trifon who has spent the last 6 months giving intensive study to the subject.

Dr. Trifon describes vertical integration as "the combination under a single control of successive stages in production and distribution, where each stage yields a saleable product." He points out that "single control" is the key phrase in the definition. A series of businesses are under one control if the decisions of each are directed toward increasing the gains of some "central office," rather than their own. In other words, when separate businesses are *integrated*, profits go into a collective pocket. There is no room for bargaining between them, because they operate toward a common goal. This, claims Dr. Trifon, represents the greatest difference between *vertical integration* and *contracting*.

Contracting is, in contrast, a form of association between independent businesses, one supplying goods and/or services to the other. Each party has freedom to accept the contract or reject it. If the contract is signed, each side apparently believes he is likely to gain by it, whether the other party does or not. The final terms of the contract will, to a great extent, reflect the relative strength and ability of each party to bargain.

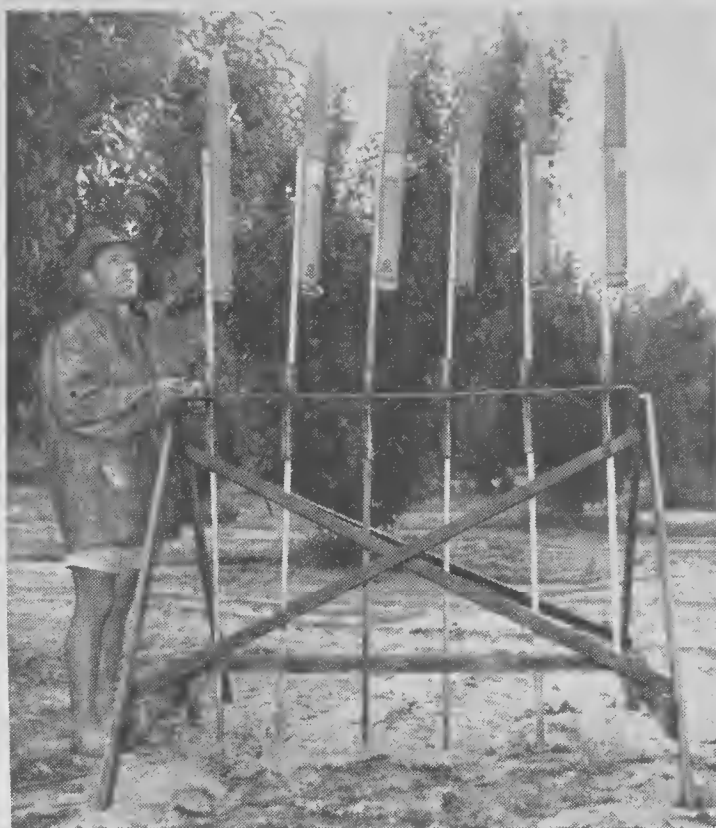
It can be seen, therefore, that the *contracting* process is subject to bargaining while *vertical integration* is not. The second important distinction is that profits are not drained into a "collective pocket" under contractual arrangements as in the case of vertical integration. Rather the profits are shared to a greater or lesser extent by the two parties to the contract.

These are, we suggest, significant differences, because *vertical integration*, as it has been defined here, exists to only a limited extent in Canadian agriculture up to the present time. Suppliers, retailers and processors, thus far at least, have not gone in for running their own farms to any appreciable extent. What has been happening, principally, is that there has been a development and spread in the use of various kinds of contracts to associate production with supply and processing firms, and processing (Please turn to page 76)

Fighting The Hailstone Hazard

*In spite of adverse comments,
Australian farmers say rockets
have offered some protection*

by L. T. SARDONE



Gino Zanatta stands ready to fire a battery of rockets worth £20. They may save hundreds of pounds worth of fruit for him.

CAN hailstorms be nullified by artificial means? On a 600-square-mile strip of land in southeast Queensland, Australia, practical experiments are being carried out in a bid to solve this controversial question.

For centuries, hailstorms have been a scourge of regions producing fruit, vines and vegetables. The hail rips through the trees or vines, destroying blossoms or tearing great holes in the fruit. It crushes vegetables to a worthless pulp.

It's a sad sight to be present at a farm or orchard and watch anxious eyes follow the progress of these storms as they make their sinister approach. Unless aided by science, growers must stand by helplessly while hail plays havoc with their hard-won products. But science is coming to their aid. Today, growers in Queensland's granite belt are using rockets as a weapon against hail.

Some scientists and meteorologists hold the view that rockets cannot possibly have any effect on hailstorms. J. Warren Smith, an American meteorologist writing in 1920, said: "... It is impossible to prevent hail and tornado damage by bombing the approaching storm cloud. The forces of nature are too large to be dissipated by man-made efforts."

Now, 38 years later, Tom Archer, technical secretary of the Stanthorpe (Qld.) District Hail Prevention Committee, says that he is "cautiously optimistic" about the rocket experiments his committee members are making.

THE idea of firing into clouds to prevent the formation of hail is not new. First experiments were made with guns 150 years ago. They met with indifferent success, due to the limited range of the guns, plus lack of technical know-how at that time.

Then, in 1900, the French became interested. They set up an awesome-looking cannon with a wide barrel like an old blunderbuss. Whilst it was not world-shattering, or hail-shattering, in its effect, the French were

encouraged to continue with their experiments.

General F. Ruby, a French air force pilot, carried out many experiments in the Rhone Valley to test the practical application of firing rockets into clouds. He became convinced that they could be an efficient anti-hail weapon. Research is still being carried out in France, where the rockets used at Stanthorpe are manufactured by the Ruggieri Company, under the trade name of Fusees Paragres. The Italians, too, have conducted experiments for many years and are continuing to do so.

WHAT causes hail? Hail is formed in the vortex, or center vacuum, of a storm-cloud. This vortex is the result of the meeting of the up and down air currents. Because of the centrifugal action of the air forming the vortex, the internal pressure is reduced considerably and this, in turn, reduces the temperature. Water droplets in the vortex become supercooled, then frozen. They freeze onto snow pellets which are invariably formed on the upper fringe of a cumulo-nimbus cloud, and which are received in the vortex from the down current. Thus, a hard hailstone is formed.

In theory, if the vortex can be pushed out of shape, it will destroy itself. Its disturbance by explosives allows the warmer air to penetrate, thus achieving this aim and, at the same time, raising the temperature. These conditions automatically prevent the formation of stones. The water droplets and the snow pellets turn from freezing particles into rain. It will be seen, then, that rockets do not in themselves break up hail. They merely remove the conditions that form it.

Queensland's granite belt comprises a strip of land 40 miles long by 15 miles wide, which stretches from Dalveen in the southeast to the New South Wales border. It is so named because the soil is decomposed or crushed granite. This white soil, together with the height of the area (3,000 feet above sea-level) and the

temperate climate, provides ideal conditions for production of fruit and vegetables. Apples, pears, apricots, peaches, grapes, tomatoes, beans and many other vegetables are grown, both for home consumption and export.

It's a £2 million a year industry. Here, as elsewhere, hail could wipe out an entire crop. It is estimated that before the advent of the rocket, an average of 10 per cent of the district's products was destroyed by hail. A hail insurance scheme operated for these growers' benefit, but although it gave them some financial compensation, it could never bring back the ruined fruit and vegetables, and the days of hard labor and attention. Nor could it replace the satisfaction of harvesting a bumper crop of sun-ripened apples.

THE year 1955 saw the first rocket launching in this district. Now, 400 growers use them. They've formed themselves into groups to prevent hazardous firing of the missiles.

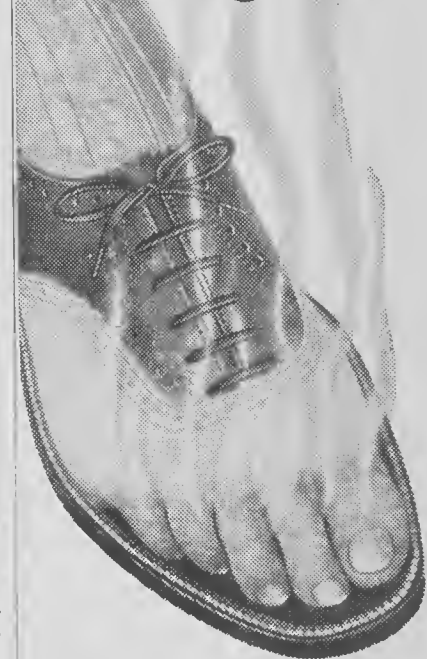
Hailstones in this part of Queensland can be recognized with the approach of black clouds marked with horizontal layers of green near the base. The rockets, which are about 3' long, are fired directly into the cloud in an attempt to reach the vortex. Depending on the ferocity of the hail, growers fire volleys of from 1 to 20 rockets.

Resembling overgrown replicas of the sky-rocket fired by children, the rockets used to combat hail are tied to thin sticks about 6' 6" long. The sticks are placed in suitable containers, such as short lengths of iron piping, and are pointed toward the sky. A wick extends from the bottom of each rocket, and depending on the system used, is ignited either by a special taper or electrically.

Motivated by gunpowder, the rockets travel at 230 miles an hour and explode at around 3,300 feet—the usual cloud height. Cheddite is the explosive chemical used, and the exterior casing is of waterproof cardboard—metal being too dangerous and costly.

(Please turn to next page)

It's dangerous to neglect



ATHLETE'S FOOT!

Left untreated, Athlete's Foot organisms burrow and spread ...may get into your bloodstream and lead to serious infection. Or possibly infect others too! So get after Athlete's Foot fast!

At the very first sign of raw, cracked skin between the toes, apply Absorbine Jr. promptly! That tingling sensation you feel tells you Absorbine Jr. is busy killing all the fungi it reaches. It's easy to apply. Relieves your misery fast!

Get Absorbine Jr. today, wherever drugs are sold.



ABSORBINE Jr.

Canada's No. 1 Formula
for Athlete's Foot.

W. F. Young, Inc., Montreal 19, P.Q.

DO MORE-EARN MORE.

with new **CASE**[®] utility equipment

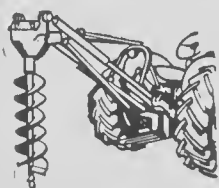


CASE brings you today's biggest value in low-cost units for earthmoving and material handling chores—on and off your farm!

Here's big industrial work-power—big economy and stamina—to handle all your loading, lifting, digging and dozing jobs quickly, dependably! Built for each other, CASE Utility Tractors and Equipment are backed by *one* warranty, *one* service source! Check their work-speeding features—and their low, low prices.

Biggest digging team in the low-priced field! CASE 310B Utility Backhoe-Loader beats any other in its price class for fast digging and front-end loader work. Its 42 hp high-torque engine and big hydraulic system deliver plenty of power for quick break-out, speedier lift-and-dump. Heavy-duty forged axle, hefty wrap-around frame and husky backhoe mount give the 310B shock-absorbing stamina that lifts 1500-lb. loads nearly 11' high. Backhoe reaches 16' 2" from pivot, digs 12½' deep. Swings through 180°. Exclusive hydraulic foot-pedal swing control saves seconds every cycle.

CASE offers you these and other quick-change attachments...



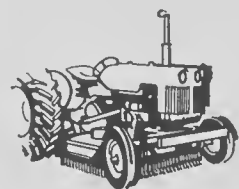
POST-HOLE DIGGER



ALL-PURPOSE BLADE



TERRA-SCOOP



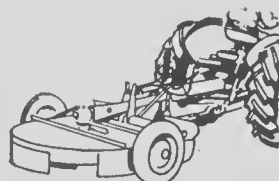
UNDERSLUNG ROTARY MOWER



POST DRIVER



CUTTER-BAR MOWERS



ROTARY MOWER

CASE SETS THE PACE

with Canada's most complete line of low-cost, high-speed Utility Wheel and Crawler Equipment.

Through Field and Wood

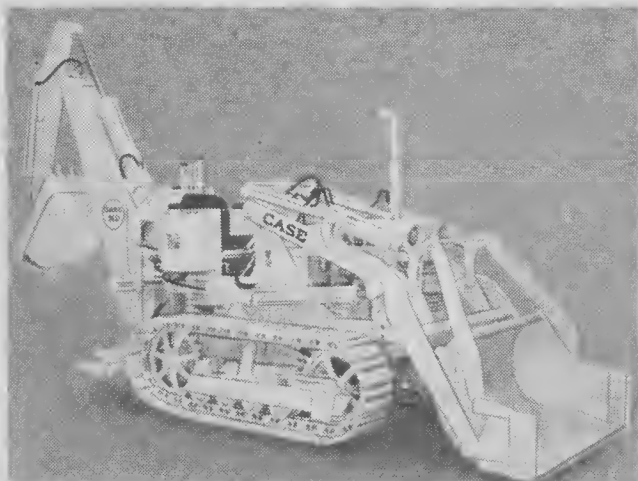
by CLARENCE TILLENIUS—No. 8



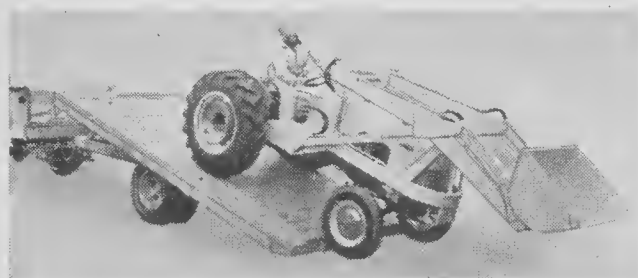
CASE 210B Wheel Loader is the lowest-priced in its class. Lifts 1000-lb. loads over 10' high in seconds. Manure bucket, three sizes of earth buckets, dozer blade, crane boom are all interchangeable on loader arms.



You handle palletized loads easily and quickly with the CASE 210B. Pallet fork attaches to loader arms in minutes. Individual rear-wheel brakes permit short turns; pedals may be locked together for road travel. Choice of 3 transmissions!



New CASE 310C Backhoe-Loader gives you more power and built-in brawn than any comparably priced unit. Its husky CASE 148-cu. in. overhead-valve engine develops up to 64% more torque than competitive power plants. Equipped with $\frac{3}{4}$ -cu. yd. loader and backhoe with 12½' digging depth. Backhoe reaches further, loads higher than competitive models. One hydraulic system serves both backhoe and loader. Angling dozer and bull-dozer blades also available.



5-ton CASE Tilt Trailer saves you hours of loading and unloading time. Just tilt trailer bed, drive your tractor on... and you're set to go in 2 minutes. Yours at a price far lower than any similar trailer on the market!

MAIL TODAY FOR FREE LITERATURE

CASE

J. I. CASE COMPANY,
17 Vickers Rd., Toronto 18, Ont.

Rush me free literature on CASE
Utility Wheel and Crawler Equipment.

NAME.....() Student

ADDRESS.....

.....

IN May 1957, I was sketching among the bands of Bighorn sheep in the mountains near Waterton Lakes, Alta. For several days I had worked among the sheep on the mountain overlooking Pass Creek, alternately making studies of the landscape and sketching the sheep.

Usually as I worked, small bands of rams or groups of ewes and yearlings would appear and cautiously study me from some nearby ledge. The wild sheep are wise creatures, and they soon sensed that my presence there meant no danger to them. Before long I could paint on the slopes all day and see sheep all about me feeding, playing or lying down studying me with some curiosity as to just what the two-legged critter was up to, standing for hours in one spot.

But one foggy morning as I climbed up the slope, the landscape seemed somehow different. At first I thought it was because of the fog, but suddenly I realized what really had changed: the sheep were gone. Not one in sight anywhere, though on other mornings I had often seen 40

or more at a time. They had accepted my presence so completely that I could not think they had departed on my account, yet that seemed the only answer.

I had finished painting the lower slopes the day before and intended this morning to climb up on a high saddle over which a sheep's trail led to the mountain's peak. As I scrambled over a precarious ledge, I saw fresh sheep tracks in the damp gravel and then, so newly made that damp sand was still crumbling from the edges, a single paw print like a huge cat's. The mystery of the vanished sheep was solved. A mountain lion was hunting these slopes, and the sheep had left for safer pastures.

I watched for him every day without any success. But at one place I discovered bones and hide of a mule deer kill and not far above found a deer trail skirting a rocky ledge along which the lion had crept to gather himself for the final deadly rush. There were several old kills in the neighborhood, but as deer fed by the hundreds in the valley it was plain the lion was doing them a service by keeping the ranks thinned. V

Fighting the Hailstone Hazard

Continued from page 19

APPLES and pears are mostly affected by hail, for they blossom and mature in the summer months—the hailstorm period. From November to May is the most anxious time, for the fruit, which is in various stages of growth during these months, is then most vulnerable. It may be badly scarred or even just chipped enough to reduce its market value. One bad storm may cost a grower many hundreds of pounds.

At £3-5s each, the rockets are a good investment. Although no grower will say with certainty that they are completely effective, they all echo the words of B. Willocks, a man with 30 years' experience in the district: "I can say that, if hail is falling and I fire rockets into the cloud, the hail is im-

mediately lessened and is often replaced by heavy rain. As long as it continues to do that, I'll keep firing rockets."

Gino Zanatta goes further. His orchard at Pozieres—one of the largest in the district—is in the path usually taken by the storms. He fires about 15 rockets at a severe hailstorm and has found on many occasions that the hail has ceased after they have exploded. "That's proof enough for me," he says. "I'll keep on firing rockets."

Overall, the average loss caused by hailstorms has dropped from 10 per cent to 4 since the commencement of the rocket-firing campaign. While it is as yet too early to draw definite conclusions, these results warrant continued and enthusiastic rocket use. V



MAIL THIS COUPON FOR FREE BOOKLET

THE STEEL COMPANY OF CANADA, LIMITED,
Dept. CG, HAMILTON, Ontario.

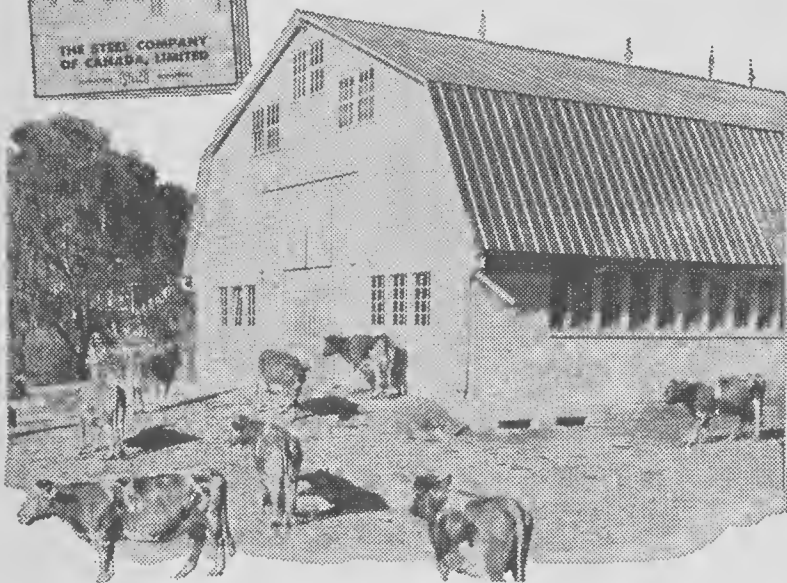
Please send me your booklet on "Stelcoat" Sheets.

Name

Address



WITH HINTS ON
INSTALLATION AND
ESTIMATING, FOR
GALVANIZED STEEL
ROOFING AND SIDING



"Stelcoat" Galvanized Steel Sheets give outstanding performance as fabricated roofing and siding for farm buildings.

"Stelcoat" has a lower initial cost than other metals. The easy application saves labour. It endures violent weather extremes and its *extra tight* zinc coating resists aging, farmyard alkalies and acids.

Simple maintenance preserves "Stelcoat" sheathed buildings in service years after other materials have failed.

AVAILABLE IN FABRICATED PANELS
FROM YOUR LOCAL SUPPLIER

for Roofing and Siding...

Specify



GALVANIZED STEEL SHEETS

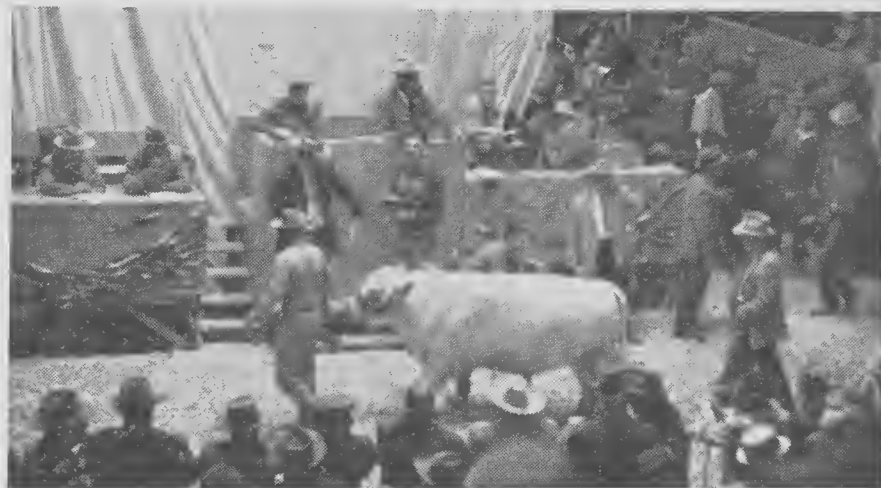
THE STEEL COMPANY OF CANADA, LIMITED
HAMILTON and MONTREAL

58072-J



*New basis for the whole
beef industry predicted*

Stiff Words from Top U.S. Livestock Man



The 1959 Calgary Bull Sale gave animals' rate-of-gain figures for the first time. [Guide photo]

SPEAKING to livestock groups during the Calgary Bull Sale in March, Dr. R. T. Clark, Co-ordinator for Beef Cattle Experiments, U.S.D.A., Denver, Colo., had some pretty stiff words for the beef cattle industry and the established breed societies.

"I'm a great believer in introducing new animal species," he said. "Animal scientists should be just as free as plant scientists when it comes to bringing in new material. And don't imagine for a moment that the British breeds are the only cattle on this continent with good beef characteristics. The Charolais, to name one, has some very fine qualities."

Dr. Clark went on to say that the writing is now on the wall for the established breeds if they would only see it. Instead of the "Menç, Mene, Tekel, Upharsin" of King Nebuchadnezzar's time, the words now say, "Performance test, progeny test, dwarfism and Charolais." The first breed association to recognize P.T. and honestly do something about it, will leave the others far behind.

"At the present time," he went on, "the American Hereford Association is the only one that is beginning to think this way."

THOSE who see P.T. as a new fad should look into the history of the British breeds—they were developed by performance testing. Early breeders of these types put together a veritable melting pot of genetic material, which is one good reason why we shouldn't look down our noses at the various strains in some of the new breeds now coming forward.

"We've departed a long way from the objectives of these original breeders," Dr. Clark pointed out, "and scattered deleterious genes all over the place. The reduction in weight in some of our commercial herds is ghastly to behold. We've confused quality with a slow growing, dumpy animal, when we should've developed

one which would allow the butcher to give his customers a fine piece of beef at an economical price. In some of the U.S.D.A. carcass tests there has been as much as \$20 difference between animals within one grade. Proper selection would've prevented this.

"All we're suggesting is that you put your industry on a business basis," he explained. "Look at the poultry people. They don't try to breed bantams, or worry about pure strains—they just concentrate on production. In an era where we're supposed to be shooting for the moon, the beef cattle industry hasn't even got its ship off the ground."

SPEAKING of the new ruling instituted at the Calgary Bull Sale this year where an animal's weight on arrival and its rate of gain since birth are recorded and posted over the stall, the U.S.D.A. expert had this to say:

"In spite of the many discrepancies in this method, I look upon it as a beginning. It means the door has been opened a crack in the direction of objective breeding. Believe me," he added, "I never thought I'd live to see the day when an auctioneer at this sale would use such words as 'weight-for-age' and 'rate-of-gain.'"

Dr. Clark predicted that performance testing would soon be introduced in Britain because commercial stockmen are demanding it.

"I can also assure you that artificial insemination is here to stay," he stated. "And that it won't ruin the purebred industry any more than crossbreeding has ruined the commercial beef industry. I think that within our lifetime we'll see the whole beef industry put on a new basis through performance test, progeny test and artificial insemination. The most interesting phase of breeding will come when we start to combine these top selected animals together through A.I."—C.V.F.

BALE MORE

in less time—at less cost

with the big-capacity

McCORMICK No. 46 BALER

Capacity is the big thing in a baler—and the 46 "takes it in and puts it out" faster than any other baler in its class! Positive power flow, extra wide feed opening, triple wide-sweep packer fingers and freedom from stretching belts and chains are just a few of its advanced hay-making features. Low first cost, big daily tonnage, sure-fire tying, long runs

without downtime—that's the McCormick No. 46. Let your IH dealer prove to you that it's profitable to own a 46 for as little as 2 days baling a year.

For big hay acreage, or for custom work, the McCORMICK NO. 56 gives bigger, heavier "shipping bales" tied with twine or wire.

Here's what farmers like yourself are saying about the McCormick No. 46:

Ray Brisseau, Saskatoon, Sask.

"After baling for my neighbours, I was told my No. 46 had done the best job... that they had ever seen."

Harry F. Yates, R.R. No. 2, Callendar, Ont.

"I put up 7,000 bales last year and only missed 4."

Boczuk Farms, Milk River, Alta.

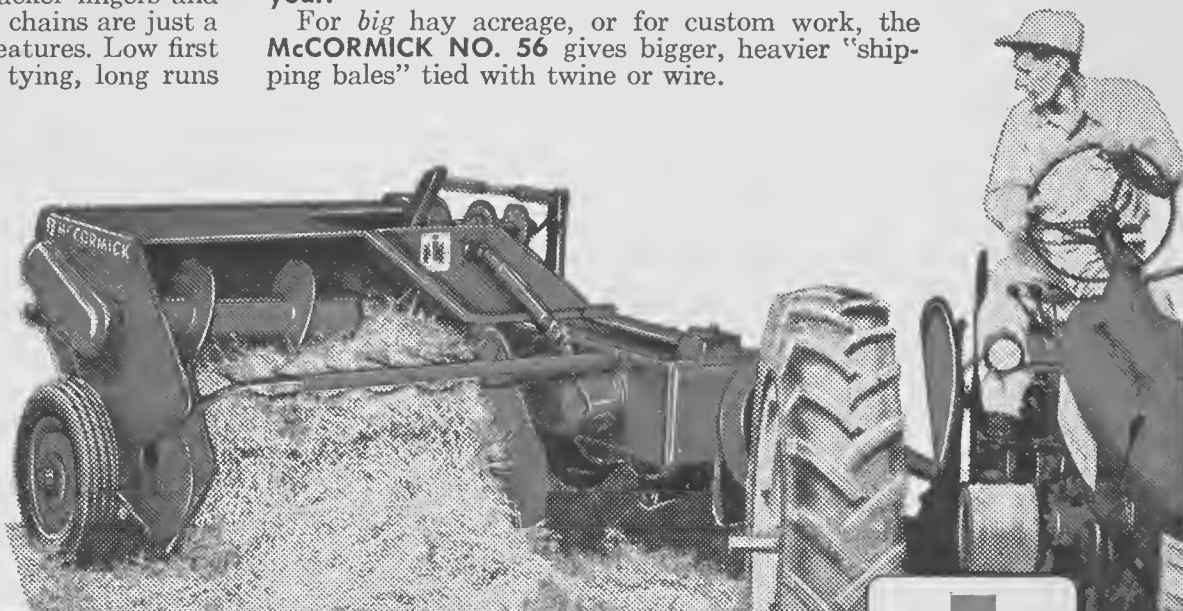
"No. 46 does a wonderful job—we are sure proud of it."

Andy Chontosh Jr., Taber, Alta.

"Very pleased with our No. 46—especially its ability to 'take it in' and 'put it out'."

John Neil, Burdett, Alta.

"I have found my 46 baler entirely satisfactory. The capacity of this unit is everything claimed for it."



INTERNATIONAL HARVESTER



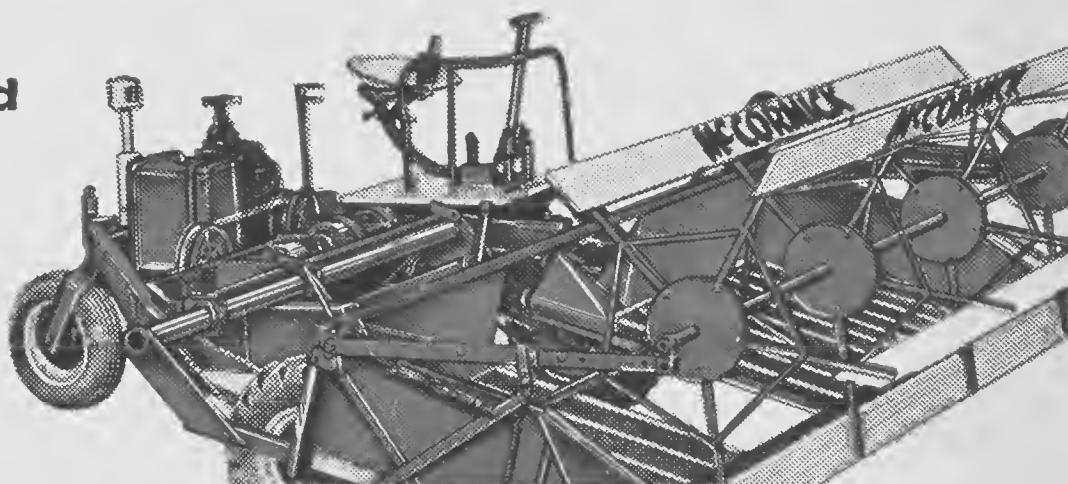
MOW and RAKE IN ONE PASS

with the McCORMICK
No. 163 Self-Propelled
WINDROWER

FOR HAYING—a hay platform for once-over, all-over hay-making—for the fastest, cleanest most palatable hay. A perfect combination with either your baler or forage harvester.

FOR GRAIN—eases grain on to the stubble without long, shattering drop. Delivers well-formed, well-aerated windrows that withstand wind and rain, dry out quickly and cure evenly.

FOR SPRAYING—you'll find the No. 163 with spray boom the fastest, easiest way to get your field crop spraying done.

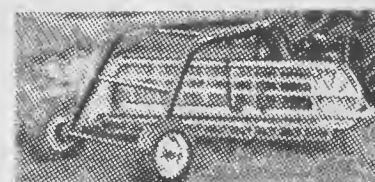


McCORMICK MOWERS AND RAKES

The complete line of McCormick Mowers lets you choose a rugged, precision-engineered model that matches both your power and your mowing needs. Designed for fast, clean, trouble-free cutting under all conditions of crop and field.



There's a McCormick Rake that's built for your farm. Semi-mounted, trailing side-delivery and fast-hitch side-delivery types for high-speed performance and gentlest handling of your hay.



YOUR IH DEALER IS THE MAN TO SEE

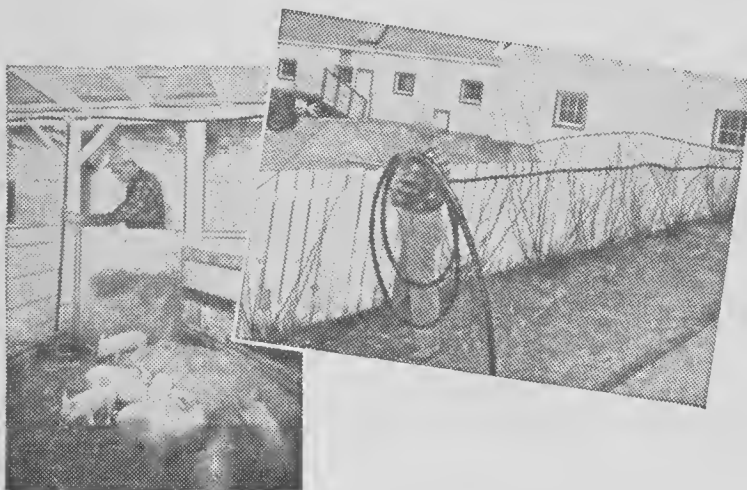
INTERNATIONAL HARVESTER COMPANY OF CANADA, LIMITED, HAMILTON, ONTARIO
Farm Tractors and Equipment • Motor Trucks • Crawler Tractors • Construction and Commercial Equipment

PAGE-HERSEY

Flexible PLASTIC PIPE



makes it easy to have
DRINKING WATER
anywhere on your farm
FAST... INEXPENSIVELY



Page-Hersey Flexible Plastic Pipe comes in long flexible coils. Light, strong, easy to handle. Very simple connections. First quality pipe, approved for carrying drinking water for human or animal consumption.

You can trench Page-Hersey Polyethylene Plastic Pipe in minutes with your tractor. Hang this flexible pipe on a fence... use it to water farm animals and fowl, indoors or out.

CONTAINS 100% NEW POLYETHYLENE

Page-Hersey Flexible Plastic pipe is tasteless, odorless. Won't rot or corrode. Unharmed by freezing. The perfect way to bring drinking water to your home. Obtainable at your plumbing, heating or hardware store. Complete line of fittings available.

SEND FOR NEW BOOKLET TO:

PAGE-HERSEY TUBES, LIMITED

100 CHURCH STREET, TORONTO, ONT. PH-1059b
Vancouver, Edmonton, Calgary, Winnipeg, Montreal, Halifax

OWNED, OPERATED AND CONTROLLED BY CANADIANS



LIVESTOCK

Sudden Exercise And Poor Nutrition

JUST after calves have been turned out to pasture is usually the time when white muscle disease makes its appearance. Ontario Veterinary College researchers believe that the disease is associated with a sudden increase in exercise and a poor nutritional standard on the farm. Frequently the calves will die suddenly a few days after being put out to pasture.

Careful observation may show a mild stiffness or inability to rise in affected animals. In acute cases, there may be very rapid breathing and great distress just before death. Treatment is not usually too effective after the onset of symptoms, but since the disease is similar in character to some other conditions, an early accurate diagnosis is important in avoiding further losses.

Preventive measures include sound nutrition. Vitamin E supplements are advisable where the disease is a problem, and they should have been fed for at least a month before the pasturing season if losses from white muscle disease are to be minimized.

The same disease occurring in sheep may be prevented by selenium, a new nutritional element, according to University of Wisconsin researchers. Vitamin E was more effective than selenium in preventing the disease when it was produced experimentally, by feeding fish liver oil in large amounts with a ration of poor alfalfa hay and a grain mix. However, selenium may prove to be more beneficial in treating natural cases of white muscle disease. V

Weaning Stress Lets in Disease

REDUCE the stress on them at weaning time, and your calves will stand a better chance of avoiding disease, says Dr. Tom Johnston, Saskatchewan's provincial veterinarian. Handle the calves carefully, not running them around, or getting them excited and heated up. If they are to be vaccinated, do it at least 2 weeks before weaning.

Make sure that clean water and good hay are readily available to the calves. Provide good shelter that has been thoroughly cleaned. If there was any evidence of disease the year before, use disinfectant in the yard and barn.

The most common stress diseases in calves are pneumonia-like conditions, with animals coughing and showing signs of diarrhea. The disease called coccidiosis often accompanies weaning, and because it usually survives around damp areas where animals drink, a clean source of drinking water is important.

Give calves good hay when they are first weaned. After they settle down, they should be started carefully on whole oats. They need plenty of protein for growing, minerals should also be fed, and if the hay is not top quality and not too green, a vitamin A supplement is essential. V

HANFORD'S



Now, a more economical, faster, easier method of treating mastitis! The 4-shot, 4-tip SELECTA syringe contains 24cc of a high-potency antibiotic formula that is a medically proved specific for the usual mastitis-causing bacteria. Snap-off plastic tabs accurately measure four 6cc doses. Conforms with latest regulations.

AND REMEMBER —

HANFORD'S MASTITIS TREATMENTS IN THE HANDY TUBES

Available in several preparations: Penicillin, Dihydro-Streptomycin, High Biotic, Cobalt-Biotic, Sulfa. Be sure to ask for reliable HANFORD'S.



G. C. HANFORD MFG. CO., LTD.
Brockville, Ont.

MEN PAST 40

Afflicted With Bladder Trouble,
Pains in Back, Hips, Legs,
Nervousness, Tiredness.

If you have these troubles, particularly bladder trouble, then your condition may be traced to Glandular Inflammation... a constitutional disease. Medicines that give temporary relief will not remove the cause of your trouble. Neglect of Glandular Inflammation often leads to premature old age and sometimes incurable malignancy.

The past few years men from over 1,000 communities have been successfully NON-SURGICALLY treated here at Excelsior Springs for Glandular Inflammation. They have found soothing relief and a new outlook in the future of life.

The Excelsior Medical Clinic, an institution devoted exclusively to the treatment of diseases peculiar to older men, has a NEW FREE BOOK that tells how Glandular Inflammation may be corrected by Proven NON-SURGICAL treatments. This FREE BOOK may prove of utmost importance in your life. Write today. EXCELSIOR MEDICAL CLINIC, Dept. B8740, Excelsior Springs, Mo.

thinking of BARN CLEANERS?

HEAR—BEFORE AUG. 1—
CORNELL'S MONEY-SAVING
STORY ON '59 MODELS

**FREE
FLASHLIGHT!**
dairy farmers only!



- small link, equal-diameter, special chain outlasts them all
- exclusive outside-link pulling action
- easiest barn cleaner to install—low-low prices

CORNELL MFG. CO.
Laceyville, Pa.

Please send me FREE Flashlight after I have heard—without obligation—Cornell's '59 story.
CORNELL MFG. CO., Laceyville, Pa.

Name _____

Address _____ Phone _____

Town _____ Prov. _____

DEALERS NEEDED IN SOME AREAS
CHECK IF INTERESTED ☐

LIVESTOCK

Things to Look for When Buying Feeder Cattle

FEEDERS often ask what age and sex of cattle they should buy, when to buy them and where to buy. Dr. Elwood Stringham, head of the Animal Science Department, University of Manitoba, says that the answers depend usually on the type of feed that is available and the need to integrate the feeding program with other farm operations. In general, the three types of cattle bought for feeding are "calves" (weaners of 5 to 6 months of age), "yearlings" (about 18 months), and "2-year-olds" (about 30 months). Here are his comments:

Calves. These make the most efficient use of feed, requiring as a rule about 8 to 10 lb. of feed (one-half to two-thirds grain) to make 1 lb. of gain. They also lend themselves to a greater variety of feeding operations than older cattle. If the market price drops, they can be fed longer, even turned out on grass in the spring and grainfed for a fall market. They finish into an easily saleable product of under 1,000 lb. live weight.

On the other hand, calves need a high proportion of grain and better quality roughage. They gain more slowly than older cattle, averaging 1.8 to 2.1 lb. of gain per day, and take about 200 days to reach market finish. They are more difficult to get on feed and keep on feed, and their death rate is slightly higher. It must also be remembered that their original weight is considerably less than the older animal, so the profit on "margin" is less. The margin, which is the increase between the buying and selling price, multiplied by the initial weight of the animal, will bring smaller returns on a 450 lb. calf than on a 700 lb. yearling.

Yearling Steers. In general, older cattle utilize poorer quality feeds to better advantage, and need less time than calves to reach market finish—approximately 165 days at a gain of 2.1 to 2.5 lb. per day. They are easier to get on feed and keep on feed. Because their weight at the time of purchase is considerably greater than that of calves, the profit on margin is naturally larger. Yearlings make only a slightly less saleable product than calves, especially since there may be a shortage of choice 1,000 to 1,200 lb. steers.

Yearlings are less efficient feeders, requiring 11 to 14 lb. of feed to make 1 lb. of gain. Furthermore, in case of unfavorable prices, yearlings cannot be held over very long, since they become too heavy for the bulk of Canadian demand.

Two-Year-Olds. Except for a special market, the two-year-old cattle are seldom fed, as their final weights are usually too heavy for most Canadian markets.

Heifers. For several reasons, heifers over 10 months of age usually sell at lower prices in the fat stock market, and this discrimination is reflected and sometimes exaggerated in the feeder market. As a result, heifer calves may at times be a good buy for the astute feeder.

On the other hand, yearling heifers are not popular as fall feeders because they may reach unpopular weights before spring, and too often are in calf when purchased. Since most heifers can never command the price of steers, they are usually less highly

finished and consequently go to market earlier.

Quality. There is a wide range in the type of animal which will finish into "brandable" beef. Almost any beef-bred calf or yearling can make red or blue brand carcass if properly finished. Quality, thriftiness and natural fleshing must always be considered. Beware of the excessively thin animal, which will probably still be thin 200 days and 2 tons of feed later.

When and Where. Feeder prices are usually lowest in late summer and

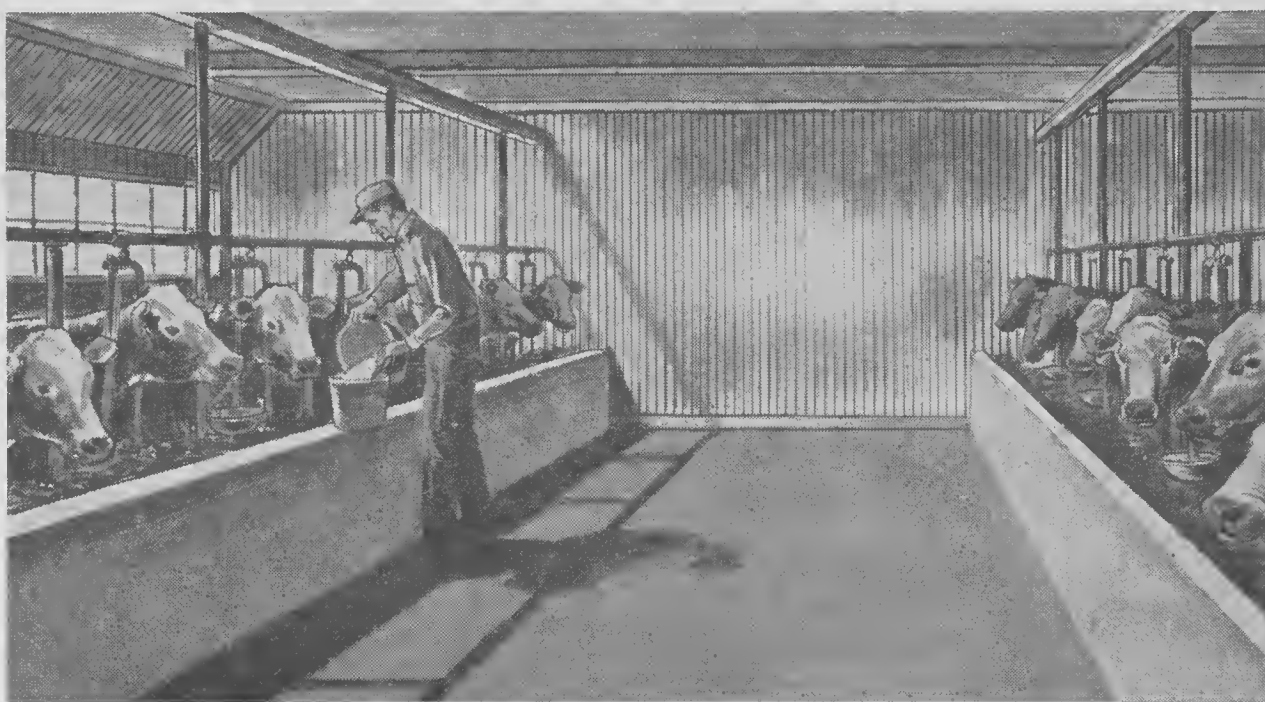
early fall, but occasionally there is a slump in mid-November on some Prairie markets. As well as the public markets, there are the community auctions, direct farm purchases and local sales to be considered. Health is of prime importance when purchasing feeder cattle.

Suggestions. If the margin is narrow or feed costs high, calves are usually the safest buy.

If the margin is wide and the feed not of the best quality, yearlings should be most profitable.

(Please turn to page 26)

EFFICIENT STABLING EARNs BIGGER PROFITS



Well-organized buildings save labour, increase yield — and cost so little with GALVANIZED STEEL.

Making the best use of your time is the first step towards maximum profit for every pound of milk or meat sold.

Mechanized methods in a modern barn let you handle more stock and earn bigger profits without adding manpower.

Whether you favour loose housing or a stanchion barn, you'll get the efficient buildings you need at *less* cost with Galvanized Steel.

Galvanized Steel is structurally strong—reduces the amount of framing required. The heavy zinc coating will not crack, chip or check—rust can't get a start.

Galvanized Steel is easy to work with—you can save more money by doing it yourself.

Plan for a lifetime of efficient farming with low-cost Galvanized Steel farm buildings.



This spacious pole barn is typical of the many types of efficient farm buildings you can economically construct with Galvanized Steel. For complete details on the buildings for your farm, talk to a distributor and contact your local agricultural representative or Provincial Department of Agriculture.

Ask before you buy —
"IS IT MADE IN CANADA?"



DOMINION FOUNDRIES AND STEEL, LIMITED
HAMILTON CANADA

Manufacturers of "NEW PREMIER" Galvanized Steel

23 5902



THE 4-H LEADER

is a local leader in his community who is devoting his time to the training of youth. By giving the young people a better understanding of the various phases of agriculture, he is helping to develop Canada's farmers of tomorrow.

OUR LOCAL MANAGER

is another man who knows his community well and helps it to develop. He'll gladly show you how your farm will benefit from wider use of the complete banking service we offer—including Farm Improvement Loans. Call in and see him next time you're in town.

THE CANADIAN BANK OF COMMERCE

800 BRANCHES ACROSS CANADA READY TO SERVE YOU

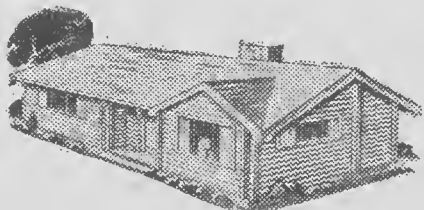
FN-49

—BUY— TIMBER BUILDINGS CEE-DE-LOG

KILN-DRIED to minimize shrinkage with Timber Building's Positive concealed corner-locking device.

THE LASTING BEAUTY OF
WESTERN RED CEDAR LOGS

CHURCHES - SCHOOLS -
AUDITORIUMS



CMHC Accepted for NHA Housing. Ideal insulation against Heat and Cold. Natural Stability.

COTTAGES - MOTELS - LODGES
- SERVICE STATIONS

TIMBER BUILDING SUPPLIES LTD., CALGARY

LIVESTOCK

(Continued from page 25)

Calves bought in the fall and wintered over, or yearlings bought in the spring, present the best prospect for finishing on grass and grain.

Heifer calves may be easily overlooked as profitable feeders, but they

are especially good for the novice feeder's first attempt.

Older heifers, cows and big, rough steers should be left for straight grass or cover-crop finishing. The latter also are good 100-day feeders, as they are usually in fair condition in the fall. V

Feeders On a Grain Farm

Feeders are held in a corral while they are started on an oats ration.

[Guide photo



WHAT started as a way to convert surplus grain into cash has become a profitable enterprise for Jack and Bill McCloy at Weldon, Sask. The brothers had raised beef cattle some years ago, but went out of it when they ran into some breeding troubles, and they also felt they were getting too many heifer calves. Furthermore, it took too much of their time. That left them dependent on grain and vulnerable to the marketing difficulties of recent years.

Then in 1956, still determined not to return to breeding, they bought a bunch of feeder cattle to use up some of their wheat, barley and oats. They have been putting them through the feedlot since then at a rate of 170 a year. The McCloys usually buy feeders in the spring and fall, but that leaves their feedlot empty some months, so they are planning to buy replacements as soon as they sell each lot.

Their most successful bunch came in last spring, and when shipped to the packer at the end of September, a whole group of 26 made red brand and averaged 1,040 lb. Another good lot was shipped the following week and 90 per cent were acceptable as branded beef. Sometimes the feeders go to market early to catch a good price, even if they miss top grades.

The starting ration is oats, and then the cattle go onto wheat and barley, with stilbestrol to bring them along fast. Most of them are common steers, weighing around 700 to 800 lb. and with no special preference as to breed. The brothers fatten them to the extent of 200 to 300 lb., depending on the initial weight, to put them around the 1,000 lb. mark and into the branded class. Most of them come from the Prince Albert and Saskatoon areas and they are kept entirely in the feedlot without any grass.

The layout is a very simple one. There are two corrals, with a loading chute and squeeze between them. Here the cattle can be sorted, started on feed, or held for shipping. The feedlot is sheltered by trees on the north, east and south sides, with a straw-bale shelter, self-feeder for grain and hay racks on the west side.

Grain is augered into a feed grinder inside a small shed, transferred into a

barrel to be mixed with stilbestrol, and then shoveled straight into the self-feeder alongside the shed. Bales of slough hay are piled up behind hay racks. It takes no more than 2 hours a day to handle the feed.

This is a plain, low-cost feedlot and has served its purpose well so far. However, the McCloy brothers like the feeder business so well that they think they might invest some money in a more durable type of layout. They have an arrangement with the packer to pick up finished cattle from the farm and deliver feeders as needed, which puts them in a position to expand their cattle business with a minimum of effort.—R.C. V

Prevent White Scours

PREVENT infectious white scours in hogs by keeping their resistance at the highest possible level. The Ontario Veterinary College recommends prevention by stopping anemia, feeding balanced rations to the sows, and providing good warm, dry farrowing and nursing quarters.

If the disease occurs, isolate the infected litter from the others, consult a veterinarian, and start treatment as soon as possible. Clean and disinfect pens between farrowing to stop the infection becoming seeded down in the pens and affecting subsequent litters.

Signs of the disease are whitish or creamy diarrhea, loss of condition and rough appearance. V

Van Nortwick Bulls

WE regret that an error occurred in our story "Staying in the Black" (March 1959) where a comparison was being made between the gains of the Van Nortwick bulls and the overall average. The passage should have read as follows:

"Their own (Van Nortwick) bulls averaged a gain of 2.34 lb. per day on feed, as compared to the overall average of 2.01 lb. for all herds being tested in the three provinces participating in the R.O.P. plan—B.C., Saskatchewan and Manitoba." V

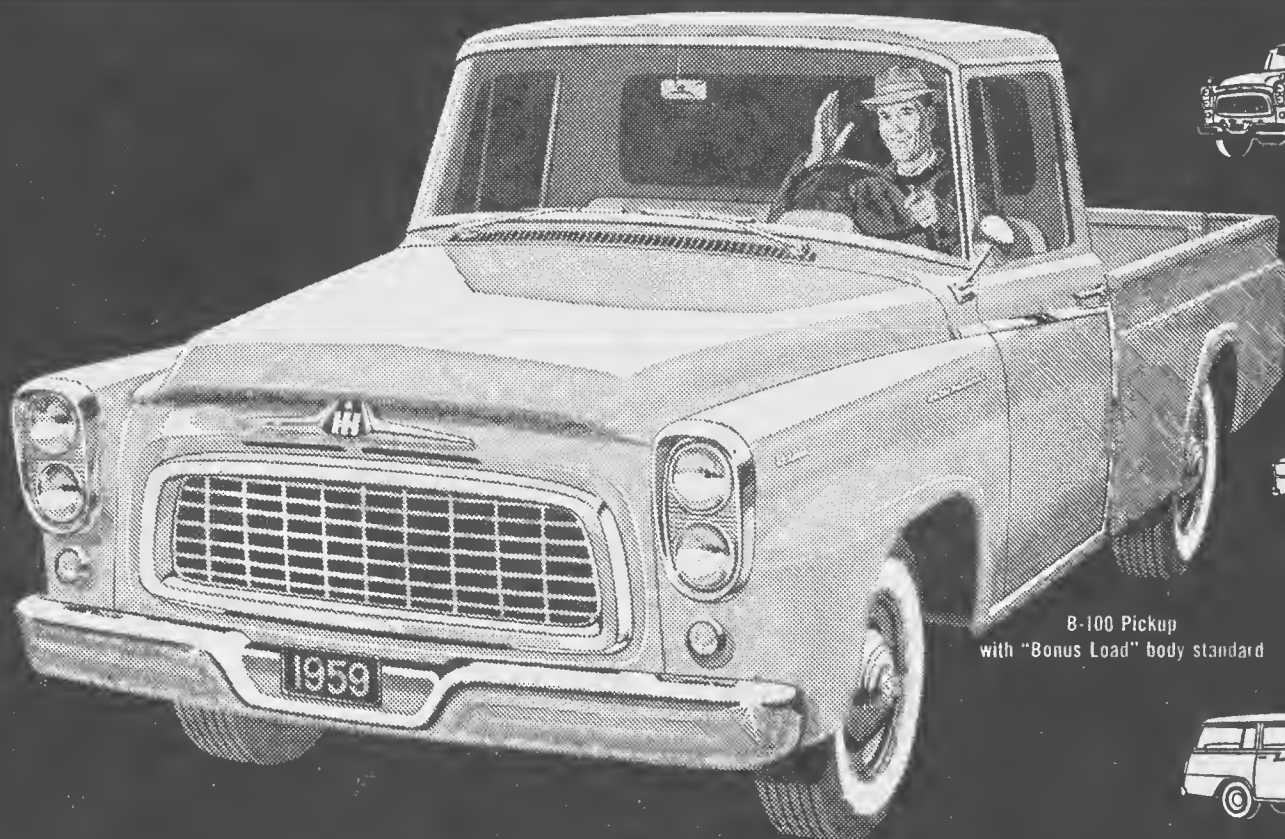
Here's Truck Design that makes good sense!

Functional Styling!

Costs less to keep like new. Practical truck operators know that 'fancy' styling just doesn't pay. Exaggerated body lines, complicated grilles and 'flashy' chrome trim add nothing to a truck's performance — but they can add a lot to repair and maintenance expense.

Efficient Truck Engineering!

Balanced power train from engine to axle gives you the responsive and economical power you want. Solid frames soak up road impact... sturdy construction keeps out rattles. International trucks are built to *work*, and built to *last*.



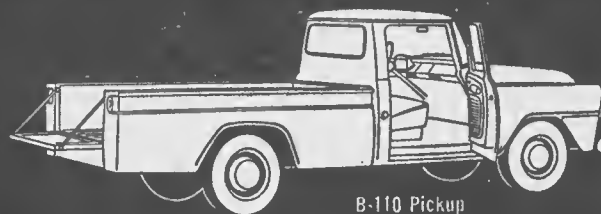
B-160 Stake



B-110 Travellette

B-100 Pickup
with "Bonus Load" body standard

B-100 Travelall

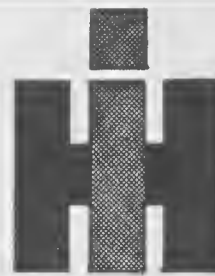
B-110 Pickup
with "Bonus Load" body standard

See and drive the

NEW

Light and
Medium Duty

INTERNATIONAL TRUCKS



Built by men who know a farmer's problems!

8 OUT OF 10 DAIRY MEN AGREE!

RAPID-FLO*

Fibre-Bonded MILK FILTER DISKS

GIVE CLEANER MILK THAN ANY OTHER MILK FILTER!

FILTER PRODUCTS DIVISION

Johnson & Johnson
LIMITED MONTREAL

THE ONLY CANADIAN-MADE FILTER FOR CANADIAN DAIRY FARMERS

*Trade Mark

When Writing to Advertisers Please Mention The Guide

LIVESTOCK

Mabou Fattens Lambs on Grass

CAN lambs be finished to a quality killing grade right on grass? They can on Cape Breton Island at least, where a community pasture at Mabou was cleared, fenced, fertilized, limed and reseeded by the province's Department of Agriculture. This is part of a program to stimulate livestock production.

Sheep made a remarkable showing last year. Of the 56 lambs going to market in the first shipment in September, 49 graded A and 7 graded B.

There was a double reason for these good results. The sheep were treated for parasites to assure good health. Also, those hilly fields, drenched in rain and fog, produced a mat of lush green grass that kept the animals knee deep in grass most of the summer.

Owners of the sheep are mostly fishermen-farmers, who have small farms and tiny flocks and herds, and who divide their attention between the sea and the land to make their living. In other years, their neglected animals often gave small lamb crops, and these made slow growth, yielding thin carcasses in the fall when sold off the home pastures.

"Now," states the Department of Agriculture, "these owners are reporting that they never before have had lambs that weighed and graded as well."

In 1958, about 400 ewes, owned by several dozen different farmers, grazed



[Guide photo

This bunch of lambs was almost ready for market at the community pasture.

the community pasture, which was partly given over to cattle as well. The department expects that when owners see the profits to be made with sheep, they will retain their ewe lambs and build sizeable flocks, giving themselves a real stake in the farming business. By grazing their ewes on the community pasture during the summer, it is hoped that the farmers can devote their own limited acreage to hay and other crops.—D.R.B. V

Feeders' Day

THE University of Alberta is holding its 38th annual Feeders' Day on Saturday, June 6. As usual, the program will include a wide variety of up-to-date information for livestock men. V

Lilly INTERVIEWS

MR. AND MRS. RICHARD GRABER, MINERAL POINT, WIS.

"Our Hygromix pigs went to market ahead of the others"

Young farm couple puts new antibiotic over series of tough hurdles. Finds that day-by-day worm control pays off.



Say the Grabers: "Worms and anemia seem to be at the root of most swine disease problems. Hygromix, by controlling worms, gives us a new level of health in our herd."

Makers of STILBOSOL® (diethylstilbestrol premix, Lilly)

ELI LILLY AND COMPANY (CANADA) LIMITED, TORONTO, ONTARIO
(Canadian distributor: Charles Albert Smith, Ltd., 356 Eastern Avenue, Toronto 8, Ontario)

by Eugene S. Hahnel

Experimenting and testing have become second nature to the Grabers. Rose Marie has her Masters degree in animal husbandry from the University of Wisconsin. Richard was one of Wisconsin's leading 4-H members.

In cooperation with the Universities of Wisconsin and Illinois, the Grabers compared two lots of 40 baby pigs up to 75 pounds. One group was fed Hygromix in the feed. The other received the same ration without Hygromix. "At eight weeks we wormed the controls (no Hygromix) with a purge-type wormer. There were lots of worms," says Mr. Graber. "The Hygromix pigs ran away from the others after 40 lbs. or so. Only 6 or 8 pigs in the control lot could match the Hygromix bunch. The Hygromix pigs all went to market ahead of the others. Also, they needed 14-15% less feed." This experiment demonstrated two things to the Grabers: 1. That they had a costly worm population. 2. That day-by-day Hygromix worm control paid off.

"The universities and our feed manufacturer ran worm egg counts. Hygromix cut the worm egg count to a very low level. In the controls, however, egg counts ran high." What does this mean? It means that Hygromix kills baby roundworms and nodular worms...day by day as they enter the intestinal tract...long before they can do internal damage or lay eggs.

Mr. Graber summed up his feelings about Hygromix: "Hygromix is no medicine. It's an everyday method of control and you should use it as recommended."

HYGROMIX®
(S. hygroscopicus fermentation products, Lilly)



LIVESTOCK

Fly Control For the Farm

FLIES, those carriers of disease and filth, can be controlled by sanitation plus the proper insecticides. C. L. Neilson, provincial entomologist for British Columbia, makes the following recommendations:

Sanitation. Spread manure at least once a week, or treat piled manure daily by spraying the top layer with (a) 1 lb. borax in 6 gallons of water to 30 sq. ft., (b) 1 per cent malathion in water.

Remove moist feed, drain away urine and water from barn areas, keep garbage can covered, and screen doors and windows.

Insecticides. Space sprays can be applied in the home or barn with any sprayer that will produce a fine mist or fog. Aerosol bombs are commonly used in the home. The chemicals are pyrethrum, organic thiocyanates and allethrin.

There are also residual sprays that leave a long-lasting deposit where they are applied. In dairy barns you can use methoxychlor, malathion and diazanon, but for other buildings there is also a choice of DDT, lindane, chlordane, aldrin, heptachlor, endrin and dieldrin. Spray all areas where flies congregate, such as walls, ceilings, windows, fences and garbage areas. Follow the manufacturers' directions. These residual sprays should be applied twice as heavily to unpainted as painted surfaces, and they usually remain effective from 2 to 6 weeks.

Baits can also be used. There are several on the market that have sugar or molasses added to an insecticide. Dry baits are sprinkled on floors, window ledges, etc., but not where they will contaminate animal or human food, or utensils.

Remember that insecticides are poisonous. Read and follow the manufacturers' directions. Don't apply them to feed troughs, feed, milking equipment or water troughs. Don't use barn spray emulsions on cattle. Don't expect something for nothing—fly control is possible, but with some effort. V

Cattle Bloat Still Baffling

IF veterinary scientists knew why bloated cattle cannot eliminate gas by belching, the problem of prevention and cure of bloat would be less complicated, according to the Ontario Veterinary College.

It's common knowledge that bloat is the result of too much gas in the rumen, the largest compartment of the cow's stomach. The gas is a product of the digestive process, and under normal conditions it can be eliminated by belching before it causes distress.

But why does bloat occur? One theory is that the rumen is paralyzed through indigestion. The type of feed is also suspected, legume pasture or a phosphorus deficiency, for instance. In this regard, it is known that it is always safer to use pasture containing at least one-half grasses rather than straight legumes. In some areas, a phosphorus supplement appears to ease the bloat problem in cattle. V

The Short-Couple to Bigger Tonnage It's Oliver's

TEAMED-POWER



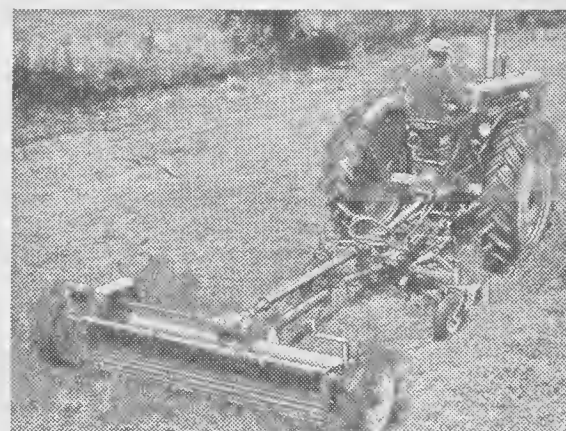
THE TRACTOR: The TEAMED-POWER Oliver 770—now up-powered into the top of the 4-plow class and also the ideal baling tractor. It's powered right for the job—with 6-cylinder smoothness for steady going. Oliver's Power-Booster Drive gives you 12 forward speeds—one for every baling condition—and always a stopless shift to fit your ground speed to the baling load. You have *Independently Controlled PTO*—no tiresome clutching and shifting. And for economy, you can choose the fuel that suits your area best: gasoline, diesel or LP-gas. You'll never miss with this Oliver tractor and...

THE BALER: It's the high-tonnage Oliver 60—with the close-coupled pivot-balance hitch. Lets you follow the snakiest windrows without power interruptions... keep baling on tight turns, over rough fields. You bale *10 tons and more per hour*—hour after hour. Wire-tie or twine-tie, they both pay off in the *field* and in the *bale*. Your bales are even density from end to end, all sliced for easy feeding—in half a minute you can set any length you want. With the 770 up

front, the Model 60 baler behind, what a season you'll have—there's nothing like Oliver's TEAMED-POWER.



THE OLIVER CORPORATION
6th Ave. and Halifax St., Regina, Saskatchewan

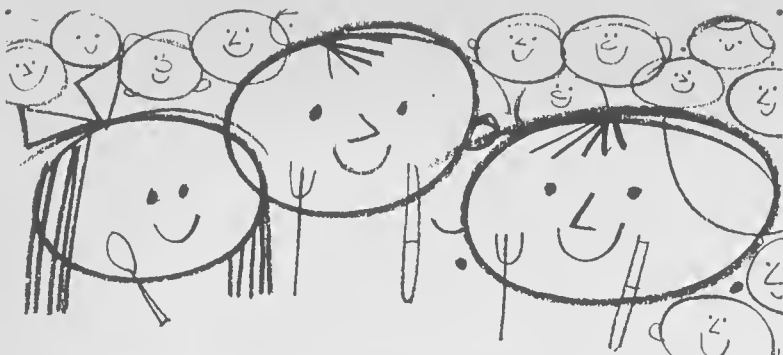


Another work-matched TEAMED-POWER combination—Oliver's fast and flexible No. 82 mower plus the *all-new* hay conditioner with easy mower hitch and direct-through PTO drive.

See Your **OLIVER DEALER** and See

BRANCHES: Regina • Calgary • Edmonton • Saskatoon • Winnipeg

DISTRIBUTORS: Lo Coopérative Fédérée de Québec, Montreal, Quebec • Goodison Industries, Ltd., Toronto, Ontario • Barker Equipment, Ltd., Fredericton, New Brunswick • Atlantic Equipment, Ltd., Truro, Nova Scotia • Pacific Tractor and Equipment, Ltd., Vancouver, B.C.



1246 new faces at the dinner table every day...

Will they consume their share of dairy foods?

Every day Canada's population increases by about 1,246 people—new immigrants and new babies. If every one of these new faces at the dinner table consumed dairy foods at the present per capita rate, there'd be a market for an additional 1,300,000 lbs. of milk daily!... more than 474,000,000 lbs. per year.

But, of course, they don't. Many of the new immigrants come from countries where milk and dairy foods are not a common staple of their daily diet. To be sure, new babies have very little to say about their diet, but they are born into relatively new households where regular consumption of dairy foods may not be so firmly established.

How do we capture our share of this additional market; and how do we maintain and increase consumption among regular users of dairy foods? By a continuing advertising and merchandising program to inform and educate the people in this vast potential new market; and by constantly reminding present customers of the importance of dairy foods in their daily diet.

SUPPORT THE JUNE SET-ASIDE

The June Set-Aside pays for this program. Each year six month-long dairy food promotions blanket the country with a heavy schedule of advertising in 91 daily newspapers, 261 weekly newspapers, 6 national magazines and French language radio.

The Dairy Foods Service Bureau backs up these promotions with a constant barrage of food stories, tested recipes, food photographs and scripts to newspapers, magazines, radio and TV stations all over Canada.

In June, over 4,000 food stores from coast to coast participate in the *June Is Dairy Month* promotion with special displays and colorful banners to reach housewives when they're buying foods for the family.

The June Set-Aside pays for the job of educating the Canadian public to the regular use of dairy foods—at a cost of little more to you than 25¢ per cow. A small price to pay for a promotional program so vast and all-inclusive. A small price indeed for the splendid job it does of maintaining and increasing public acceptance of dairy foods. Support the June Set-Aside. It helps support you.



DAIRY FARMERS OF CANADA

409 Huron Street, Toronto, Ontario



Thoughts on Dairy Crossbreds

IT'S not easy to give a direct yes or no to the question of whether the commercial dairyman should follow the trend to crossbreeding. Here are some thoughts on the subject from Prof. M. E. Seale of the University of Manitoba.

The demand for low-fat milk and the present price structure encourage volume milk production rather than high butterfat. This suggests increased popularity for the Holstein as a pure breed or in crossing. There's little doubt that proven Holstein bulls mated with cows of any other dairy breed will sire daughters more productive than their dams in terms of gross revenue per cow. Net revenue, taking into account such traits as feed costs, reproductive efficiency and disease resistance, should also favor crossbred daughters. There is evidence that with other farm animals the crossbreds are superior to purebreds in the above traits, and there is no reason to suspect that dairy cattle should be different, although there is no proof to support the statement.

There is no definite answer as to whether Holstein cows produce better crossbred daughters. However, if Holstein cows are mated to bulls of other breeds, Ayrshire and Brown Swiss are recommended. Such crosses will probably give slightly lower gross productivity, but slightly higher net productivity—the crossbred daughters may produce less milk, but more cheaply. The end result would be more annual revenue per cow on a long-term basis.

Crossbred cows can be backcrossed to Holstein sires or bulls of another high-volume, low-test breed. Artificial insemination, which permits service by top quality bulls of the producer's choice will enable him to put a systematic breeding plan into operation.

Much more experimental work is needed before the merits of crossbreeding dairy cattle are known. ✓

Springtime On the Dairy Farm

SPRING is one of the busiest seasons on the farm, but it pays to find time to adjust the dairy operation to the warmer weather. Here are some of the points to watch, listed by Prof. F. W. Hamilton of the Ontario Agricultural College:

Stables become warm, and unless doors and windows are opened for proper ventilation, the atmosphere can become laden with odors, which can be absorbed by the milk at milking time. Also, pay special attention to sanitation. If you let your standards slip now, because you're too busy, you may be affecting the consumption of milk and milk products throughout the year.

Spring provides two special feed flavor problems. You may be reaching the bottom of the silo or feeding the last few roots, and there's always a

chance that these feeds have become sour or partially spoiled. If you must feed these to milk cows, don't handle them in the stable before milking, and on no account feed them before milking.

Early spring pasture can be another problem. Grass flavors may not seem too objectionable to the man who is producing milk, but consumers are opposed to any tainted flavor in milk. Fresh grass flavors can be controlled largely by limiting the time cows are on fresh pasture. Take them from the pasture several hours before milking and give them hay and grain. This is necessary until they grow accustomed to the fresh pasture. ✓

Cost of Producing Milk

RETURNS from three dairy illustration station farms in the Fraser Valley, B.C., showed that milk sales for a man working full time for a year were 220,000 lb., or a capital investment of under \$1,000 per cow. Milk sales per man, based on 4 per cent corrected milk, varied from a low of 116,000 lb. to 228,400 lb. Milk sales per cow ranged from 6,100 to 11,100.

It was reported that sales of 9,000 lb. per cow at one location did not offset the small scale of the operation sufficiently to cover all production costs, including depreciation and interest on investment. During the 2 years under review, 1956 and 1957, the capital investment in land, buildings, equipment, feeds, supplies and livestock for the three farms ranged from \$680 per cow at one location to \$2,340 at another. Interest on investment at 5 per cent varied from 51¢ per hundredweight of milk sold to \$1.20. This amounted to 11 to 24 per cent of total production costs. ✓

Minerals Needed in Pasture

DAIRY cattle usually have bone meal and salt during winter feeding, but these minerals are often neglected when they are on pasture. Dave Ewart, Saskatchewan Department of Agriculture, points out that pasturing dairy cows need a 1 to 2 mixture of cobalt-iodized salt and bone meal in a rack protected from the weather. They also need granular salt fed free choice. They can usually get enough calcium from the pasture, but need the phosphorus available in bone meal.

If there's a deficiency of these minerals, cattle have depraved appetites, such as chewing bones or wood, production is lower and they have internal disorders. ✓

Pasture Cheapest

GOOD pasture produces digestible nutrients at lowest cost for milk production. Dr. H. L. Patterson of the Ontario Agricultural College says 1 lb. of digestible nutrients from good grass costs less than 1¢, compared with 4¢ for the equivalent from grain. Although Dr. Patterson was referring specifically to Ontario, it is equally true in the West that milk produced on pasture is the cheapest that is produced during the year. ✓

JOHN DEERE COMBINES...

Winning Friends in a Big Way



Harvest time is no time for slow-downs. Make sure you get top combine speed and efficiency by harvesting with a John Deere 95 or 55 Self-Propelled.

*Where time is money...
the big switch is to
John Deere Combines*

MORE and more people are switching over to big-capacity John Deere Combines, and for some pretty good dollars-and-cents reasons. As you well know, the moment your grain is ready to combine, you have to move and move fast. Every hour you lose costs you money, and when you get into extra days, the bill can get pretty staggering.

Check That New John Deere 95

When it comes to cutting harvesting time to the absolute minimum, you just can't beat the new John Deere 95 Combine (illustrated). Many owners have reported time cuts of 30 per cent . . . many have replaced two smaller self-propelleds with one John Deere 95!

This is only natural because the 95 is a big combine. It's big all the way through. From the 16- or 18-foot platform right on back, the 95 has tremendous capacity in all units. Look at the facts and figures: a 40-inch feeder, a 40-inch cylinder . . . 5,600 square inches of separating area, 4,061 square inches of cleaning area, and an 80 h.p. engine. Here's capacity that lets you depend on this giant of self-propelleds to harvest up to 3,000 bushels per day!

The 55 May Be for You

For smaller acreages, there's the equally competent John Deere 55 Self-Propelled with 12- or 14-foot platform. The 55 has plenty of capacity, too. You can take it and harvest up to 2,000 bushels of grain per day—that's clean grain, too, the kind that just naturally brings top market price.

Make your plans now to join the thousands who already have switched to John Deere Combines because they save more time and grain. See your John Deere dealer soon.



JOHN DEERE

"WHEREVER CROPS GROW, THERE'S A GROWING DEMAND FOR JOHN DEERE FARM EQUIPMENT"

JOHN DEERE LIMITED

Calgary • Regina • Hamilton • Winnipeg

Please send me free literature. I am especially interested in the John Deere ☐ 95 Self-Propelled ☐ 55 Self-Propelled.

SEND
FOR FREE
Booklets

Name _____ ☐ Student

Rural Route _____ Box _____

Town _____ Province _____

DAIRYING

Cull Potatoes Good Dairy Ration

CULL potatoes make better cattle feed than you think! Bob Curtis fed dairy cows at the Fredericton Experimental Farm, N.B., half of their roughage, on a dry matter basis, as potatoes. The cows were given up to 70 lb. of potatoes per day in addition to hay and grain. They produced as well as a control group which were getting an equivalent amount of grass silage.

Potatoes are low in protein, so Curtis fed extra protein to some (20 per cent protein concentrate instead of the regular 16 per cent), but was surprised to find the cows showed no benefit from it.

He points out that the Charlottetown Experimental Farm, P.E.I., has had comparable results through feeding potatoes. Now Curtis tells growers: "If you have cheap potatoes they are a good dairy cattle feed." More trials are being carried on to verify the results already obtained. V

Cost of Raising Calves Was Halved

CAN dairy calves be raised successfully on a limited milk system? Since 1952, all Holstein dairy heifers at the Lethbridge Regional Research Station, Alta., have been used to find the answer. The first experiment showed that calves fed whole milk at 10 per cent of body weight to 4 weeks of age, and no milk thereafter, weighed less at 16 weeks, but the same at 1 year, as similar calves fed whole milk to 4 weeks and skim to 16 weeks of age.

The calves weaned at 4 weeks were fed an all-plant (21 per cent protein)

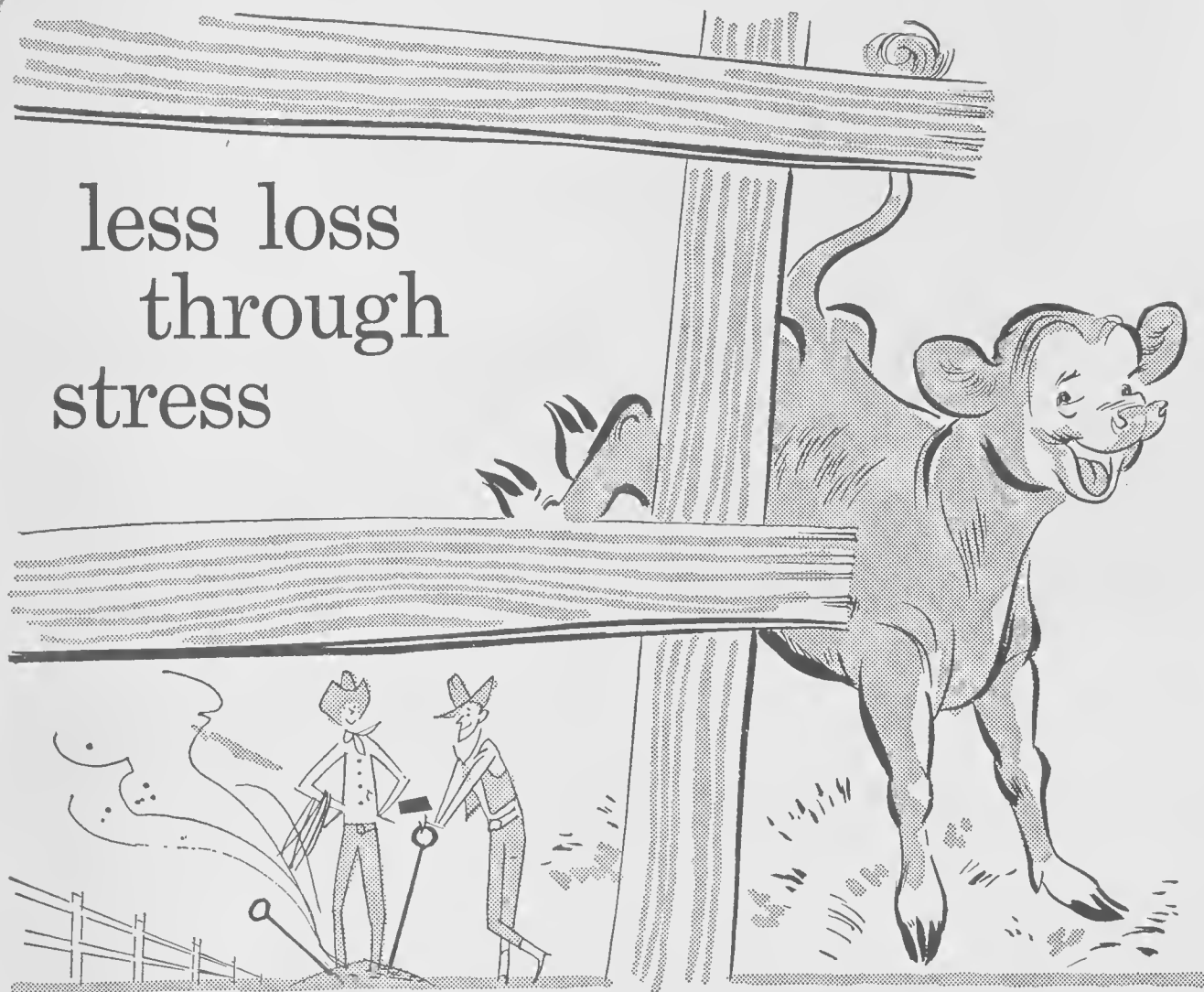
calf starter and alfalfa hay, whereas the ones fed skim had a simple grain mixture and alfalfa hay.

Other experiments have shown that dairy heifers fed whole milk at the uniform rate of 6 to 8 lb. per day until 4 weeks of age have made body weight gains as great as those fed whole milk at 10 per cent of body weight. Another set of experiments indicated that there was no difference in gains between calves fed the same quantity of whole milk (200 lb.) over a 7-week period, and those weaned from milk at 4 weeks. Weaning calves abruptly from milk did not show any differences in growth rate as compared to those whose daily milk allowance was reduced gradually during one week.

Raising dairy replacement heifers on the limited milk system (a total of 150 to 200 lb. of whole milk and no skim) reduced the cost of raising calves to 16 weeks by approximately 50 per cent, when whole milk was valued at \$4 and skim at \$2 per 100 lb.

When calves are weaned from all milk at 4 weeks of age, a high protein calf starter and good legume hay must be fed if they are to make normal gains. If whole milk is not being sold for more than \$3 per 100 lb., and if skim is readily available at low cost, the limited milk system of raising calves would not be economical. V

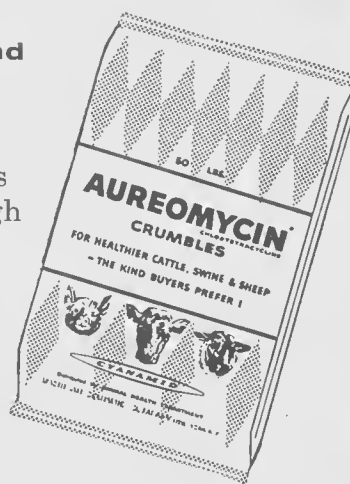
less loss
through
stress



The modern cattleman is turning more and more to creep feeding to get calves off to a vigorous start and making early low-cost gains.

And it makes good farming sense to supplement feed with readily-consumed Aureomycin Crumbles. Aureomycin helps your calves develop needed stamina to resist disease through stress caused by castration, branding, dehorning, and shipping and temperature extremes. It brings calves through weaning without that 'starved out' look. It cuts down scouring, too.

70 milligrams of Aureomycin a day—an investment of about 15 cents a week—is all you need per head. See your dealer for Aureomycin Crumbles this week for sure!



Spend More To Make More

DAIRY cows each netted their owners an average of \$125 more a year on a balanced, highly nutritious ration than those less well fed. Herds which produced more consumed \$32.44 worth of supplement, but the profit over feed costs was \$370 per head, based on top summer and winter milk prices. Although supplements cost only \$4.40 for the lower-producing cows, the net profit over feed costs was only \$245 per head.

Dave Ewart, Saskatchewan's dairy herd improvement supervisor, who compiled these results from a study of dairy herds in the province, says the lesson is clear. Dairy cows fed grain supplement and high quality hay will produce enough to more than pay for the extra feed cost. There is a difference in inherited ability to produce, but Ewart found the main difference in production was due to better feeding. V

Watch for Milk Fever

STOP milk fever before it becomes severe by watching carefully for 2 days before and after freshening. The earliest symptoms are dullness of the cows' eyes, uneasiness, and an unsteady gait or weaving. They will respond rapidly to injections of calcium gluconate in the veins at this stage.

When milk fever is more advanced, paralysis is readily noticed, cows lie with their heads turned to one side and muzzles pointing toward their flanks. They need prompt medical attention at this stage if they are to survive. The best thing is to catch milk fever sooner. V

CYANAMID

CYANAMID OF CANADA LIMITED



**A & M SYSTEM PAYS
FOR ITSELF IN HIGHER
YIELDS—BETTER CROPS**



Farmers report

BIGGER BEEF AND MILK PROFITS

**A & M, the only
Sprinkler System
with ALL the
features you want.**

A & M assures luxuriant pasture growth entire season, enabling you to graze more cattle per acre. A & M eliminates ditching, reduces irrigating and mowing time. Equipment lasts longer.

Write for Free Catalogue
Sprinkler Irrigation & Equipment Co. Ltd.
767 Ninth Avenue S.E.
CALGARY, Alta.

BRANCH AT:
1923—2nd Avenue South
LETHBRIDGE, Alta.

Clip Cows Regularly With

**Sunbeam
STEWART
CLIPMASTER**

**NEW,
More Powerful.
Motor...
25%
greater
speed**

**CLIPS
Cows, Horses
Mules, Dogs,
faster, better**

Nationally known Dairy and Health Authorities say: Clipping prevents dirt accumulation—the chief source of sediment. Clipped cows are easier to keep clean, produce more desirable milk with low bacteria count, less sediment. Overall clipping helps control lice infestation. For best results use Clipmaster. Preferred for its size, ease of handling, lasting durability.

Handy Grooming Brush attachment for Clipmaster does a more thorough job of cleaning dairy cattle. Write for information on Sunbeam Stewart clipping equipment.

SUNBEAM CORPORATION (CANADA) LTD.
TORONTO 18

Quick Relief from PILES

You'll either get quick relief from your suffering or we'll give you your money back

DR. CHASE'S
Antiseptic OINTMENT
O-2-59



Simple Cesspool

I needed a cesspool for dumping the contents of two chemical toilets. First I took a 50-gallon oil drum with the ends removed, and then marked out the place for a hole so the drum would fit into it. I dug a 7' hole, using a 6' shovel with round end, but a post-hole digger will also do the job. I took care not to damage the rim of the top edge of the hole. I then formed hooks on each end of No. 9 fence wire, making the wire long enough to be passed under the drum, so 10" of the top of the drum could be held above the surface, and the wire could be wound around 2' lengths of 2" by 4", which prevent the drum from slipping further into the hole. I keep the top of the drum covered, and add the chemical and occasionally some wood ash to control the odor. — H.S., Mich. ✓

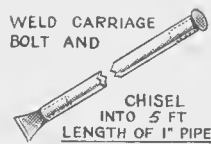


Size of Bit

A quick and easy way to find the size of drilling bit needed for screws or bolts of unknown diameter is to drill a row of sample holes in a board. Mark each hole with its size, and then you can try the screws or bolts in the holes to find the size of bit you need. — A.N.F., N.B. ✓

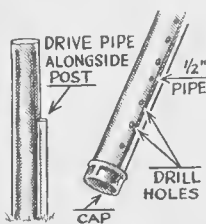
For Tamping Posts

It is a tiresome job to tamp posts with a heavy crowbar, but here is a tool you can use all day without having sore muscles. Take a 1" shaft, 4" long, and flatten one end to a chisel point, after it is heated. Then insert this in one end of a black 1" pipe, 5' long, and weld it. Weld a 1" carriage bolt, 3" long, into the other end of the pipe. This will serve a double purpose. You can make a post pole with one end and use the other for tamping dirt around the post. — J.J.T., Alta. ✓



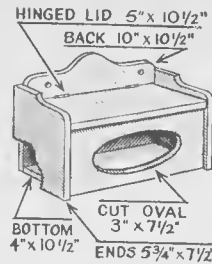
Post Pulling

A venting pipe can make fence post pulling much easier. Natural suction often holds posts tight in wet soil. Take a length of 1/2" pipe and close off one end. Drill five or six holes along the pipe. Now drive the closed end of the pipe into the ground alongside the fence post. This will admit air to relieve the vacuum, and the post can be pulled out without difficulty. — A.N.F., N.B. ✓



Tissue Dispenser

This tissue dispenser can be hung on the wall, or placed on a shelf. The sides are made of 1" by 8" lumber, and the back of 1" by 12" ripped to a width of 10 1/2". The fancy curved tops are optional, and you can get the idea from the sketch. Drill a 3/16" hole at each side of the back if you want to insert screws for hanging. The bottom and front are made from scrap lumber left over from the back board. Rip a 1" by 6" piece to 5" width for the hinged top. Locate hinges 2" from the ends and recess the leaves. Cut an oval-shaped hole, large enough to allow the tissues to be pulled out through the front panel. — R.S., N.Y. ✓



Test for Sand

Before using sand for concrete, test it by placing about 2" of sand in a glass jar, fill the jar with water, shake it, and then let it settle. If less than 1/8-inch of silt settles atop the sand, it is good for concrete. If more silt appears, get new sand. — H.M., Pa. ✓

String Holder

To keep string handy for tying sacks, drive a large nail and staple into a wall or post, spaced as shown in the illustration, pass the doubled lengths of string up through the staple and hang them on the nail.



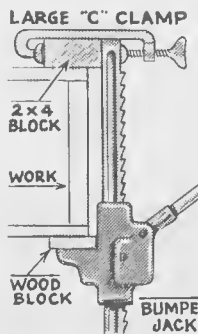
You can remove one piece of string without tangling the others. — D.E.F., N.B. ✓

Protect Hoses

Wrap glossy-finish industrial tuck tape around the cooling system hose where it chafes on the engine or other places, especially the return hose to the air-conditioner. End of tape sticks permanently if coated with nail varnish. The tape protects hoses from excessive heat. — E.O., Alta. ✓

Bumper Jack Clamp

A car bumper jack of the type illustrated makes the best clamp for holding work of various lengths while glue is drying. A 2" by 4" block is clamped securely to the top of the car jack, and the work is placed between this block and the bumper rest, over which a block is placed to avoid marring the work finish. Apply pressure by working the jack handle as you would when raising a car. If moving the jack one notch exerts too much pressure, shift the 2" by 4" block outward a little to obtain best results. — H.E.F., Tex. ✓



The file for every farm

**BLACK DIAMOND
FARMER'S
OWN FILE**

This big, rugged file is designed especially for use on Canadian farms.

12" of superior Black Diamond filing surface. More for your money, too. One side is single-cut for smoothing and sharpening. The reverse side is double-cut for rapid stock removal. Comes with handy hang-up hole and easy-grip handle.

Your hardware dealer has the Black Diamond Farmer's Own file. Pick one up soon.

**NICHOLSON FILE COMPANY
OF CANADA LTD.**
PORT HOPE, ONTARIO

BLACK DIAMOND FILES

FOR EVERY PURPOSE
Made in Canada for more than 50 years

**Completely
made in Canada**

LAWN-BOY
POWER MOWERS



**QUALITY
AND SERVICE
YOU CAN
DEPEND ON**

6 models
including the
revolutionary
new Quietfite



A COMPLETE ADVERTISING PRODUCTION SERVICE

- CREATIVE ARTISTS
- COMMERCIAL PHOTOGRAPHERS
- PHOTO-ENGRAVERS
- ELECTROTYPERS
- WAX LINE ENGRAVERS
- RUBBER, PARA-PLASTIC PLATES
- STEREOTYPERS
- NEWSPAPER FEATURES
- ADVERTISING SERVICES
- OFFSET PLATES

rapid grip and **Batten** limited

TORONTO MONTREAL OTTAWA WINNIPEG



THIS IS MODERN FARMING!

MASSEY-FERGUSON M-H-3 Baler with exclusive Leaf-Guard design, made by Massey-Ferguson, Ltd., Toronto, Ont. Powered by Model THD Wisconsin 18-hp. 2-cylinder air-cooled engine. This low, smooth, streamlined baler provides high-speed baling with a feather touch. Compression control makes well-tied, well-packed, easy-to-feed bales.

LET WISCONSIN ENGINE POWER

"SWEAT OUT" YOUR HOT-WEATHER FIELD JOBS...

Teamed up with your tractor, or carrying the full power load on self-propelled equipment, Wisconsin Heavy-Duty Air-Cooled Engines take the "sweat" out of hot-weather field work. At the same time, the built-in Wisconsin power unit helps to multiply the productive capacity of both *men and machines*.

Wisconsin Engine high-torque lugging power will carry the work load regardless of weather or season, operating smoothly and efficiently at temperatures up to 140° F., which is a lot hotter than any field conditions north or south of the equator!

When you buy new mechanized farm equipment... be sure the engine is a "Wisconsin" Heavy-Duty Air-Cooled Engine — supplied in single cylinder, 2- and V-type 4-cylinder models, 3 to 56 hp. All models can be equipped with electric starting. Write for free engine bulletin S-237.

DEARBORN Self-Propelled Swather, made by Tractor and Implement Div., Ford Motor Co., Birmingham, Mich. Powered by Model VH4 Wisconsin V-type, 4-cylinder air-cooled engine. This machine is designed for high efficiency, large-capacity one-man operation and provides easy maneuverability under all field conditions.

BUFFALO TURBINE Sprayer-Duster, made by Buffalo Turbine Agricultural Equipment Co., Inc., Gowanda, N. Y. Powered by Wisconsin V-type 4-cylinder air-cooled engine. The powerful blast of this versatile insecticide-dusting machine provides excellent coverage in both field and orchard work.

Distributed By . . .
CONSOLIDATED ENGS. & MACHY. CO. LTD.
 New Toronto, Ont. — Montreal, Que. — Mancton, N. B.
CONSTRUCTION EQUIPMENT CO., LTD., Halifax, N. S.
MUMFORD, MEDLAND, LIMITED
 Winnipeg, Calgary, Edmonton, Regina, Saskatoon
NEWFOUNDLAND TRACTOR & EQUIPMENT CO. LTD.
 St. John's, Newfoundland
PACIFIC ENGINES & EQUIPMENT, LTD., Vancouver 4, B. C.



WISCONSIN MOTOR

CORPORATION Milwaukee 46, Wisconsin
 World's largest builders of Heavy-Duty Air-Cooled Engines

MUMFORD, MEDLAND, LIMITED 576 Wall St., Winnipeg 10, Man.

Please send me full information on the Wisconsin Engine, and name of nearest Wisconsin dealer.

NAME

ADDRESS

SOILS and CROPS



*A possible replacement
for declining orchards*



[Guide photos]
 John Leefe, of the Kentville Experimental Farm, takes a look at the first tobacco crop grown commercially in Nova Scotia. It sold for 53 cents a pound.

Tobacco Crop for Nova Scotia?

A 13-ACRE tobacco crop, the first commercial crop to be grown in Nova Scotia so far, has Annapolis Valley farmers wondering if they are on the verge of having a spectacular new industry.

The tobacco was grown last year near Canning, on the floor of the famous fruit valley. It was a co-operative endeavor between the N.S. Government and Ontario tobacco grower Ernest Leitch of Dorchester. Some of the land was found to be too high in nitrogen, but 7 acres of it grew well, and matured, and was cured in kilns erected right on the farm. It was then shipped to Ontario, sold to the Imperial Tobacco Co. for 53¢ a pound, and described by that firm as being of good quality.

This crop is called "green gold" in the Ontario tobacco area. It is one of the most valuable farm crops that can be grown. An acre of it can be worth up to \$1,000. No wonder Valley growers are enthused.

Actually, tobacco has been grown in the province for 3 years on an experimental basis. Dr. Don McKay of the Kentville Experimental Farm, N.S., grew it successfully in 1956 and 1957 at the farm. Last year, he built more adequate kilns to cure it.

Despite his hope that a substantial tobacco industry can be built up in

the province, he is quick to point out that at the very best, Nova Scotia isn't likely to become a major tobacco producer. Only about 10,000 to 15,000 acres have suitable soil and climate.

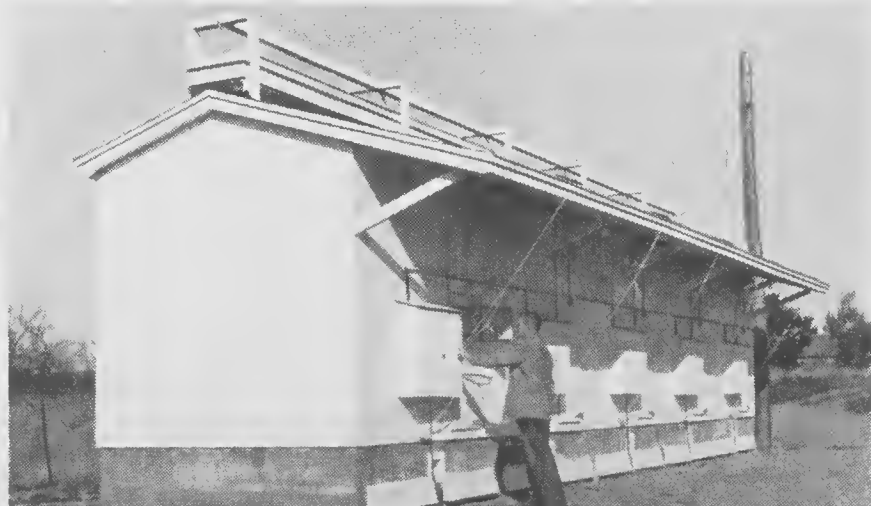
"Whatever happens, that means our production will only be a drop in the bucket compared to that of Ontario," he says.

But even that limited acreage could provide an impressive stimulus to the area's agriculture. In fact, if only one-third of those 15,000 acres went into tobacco, they could still equal in value the product of the once proud but now declining apple orchards.—D.R.B. V

Right Food For Tobacco

TOBACCO seedlings are very sensitive to fertility, and 2-12-12 tobacco fertilizer, applied at the proper rate, is considered the most suitable for the seedbed, according to Glen McCann of the Ontario Department of Agriculture. He says that fertilizers higher in potash (2-12-16 or 2-12-18) tend to produce weaker plants.

Fertilizer should be applied just after sterilization of the seedbed and before seeding, using 1 lb. for every 10 sq. ft. of seedbed. V



These new kilns were built for research at Kentville Experimental Farm.



**WINNER ANY WAY
YOU TEST IT...**

FARGO

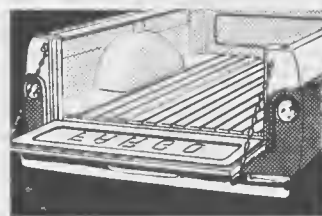
Sweptline '59

Try it with a load—and without a load. Take it through city traffic, then try it out on the open highway. Check the way it steers, the way it stops. Compare its ride . . . its style . . . its eager performance. Any way you test it, you'll discover that this great new Fargo is head and shoulders above any other pick-up you've ever driven.

The pictures at the right show just some of the extra-value *features* you get with Fargo—only a trial drive will show you how much more *truck* Fargo gives you!

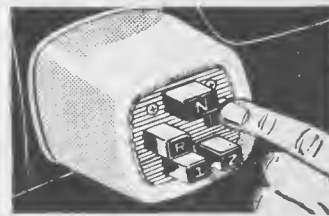
Come in and drive the new Fargo Sweptline—discover how much zip a pick-up can have! And discover how much money we can save you on any size truck you need, from 4,250 lbs. G.V.W. up to 65,000 lbs. G.C.W.

CHRYSLER CORPORATION OF CANADA, LIMITED



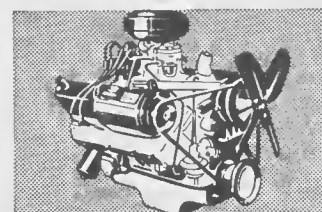
Bigger payload

Hauls up to 3,475 lbs. of payload . . . up to 84 cubic feet of load space!



Push-button driving available

Just push the button, and you GO! No clutch to shift, no levers to work!



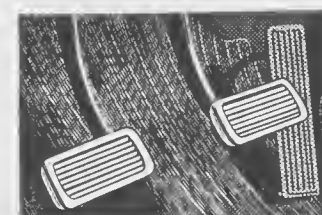
Choose V-8 or Six

184 h.p. V-8 or 125 h.p. Six. Both develop full power on regular gas!



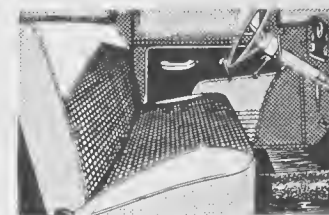
Easier servicing

Hood opens a full 90°—or to a normal 45° for routine checks! Gives complete engine access!



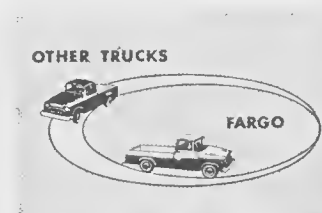
Easier pedal operation

Suspended brake and clutch pedals and hydraulically actuated clutch!



Smart, comfortable interiors

Smart two-tone colour schemes . . . fully lined doors . . . comfortable, deep cushions!



Quicker, easier steering

Shortest turning radius, plus gear-before-axle steering for easy handling!



Passenger-car ride

New, wider springs automatically adjust for all load conditions!



'TROPOTOX'

MCPB SELECTIVE WEEDKILLER

for safe use in

PEAS, SEEDLING CLOVERS and YOUNG CEREALS
and also in CELERY and PASTURES.

'TROPOTOX' kills a wide range of weeds.

For clean crops and heavier yields

For early spraying, when weeds are most susceptible

For safety to man, machines and stock

USE

'TROPOTOX'

trade mark

brand

SELECTIVE WEEDKILLER

Registered under the Pest Control Products Act. No. 5937

DETAILED INFORMATION IS AVAILABLE ON REQUEST

AN M&B BRAND AGRICULTURAL PRODUCT

MANUFACTURED BY

MAY & BAKER LTD • DAGENHAM • ENGLAND

FIA1027/65

DISTRIBUTORS: MAY & BAKER (CANADA) LTD • 180 BELLARMIN STREET
MONTREAL-11. TELEPHONE: DUPONT 1-3939

SOILS AND CROPS



[Guide photo
John Kunkel, ag. rep., Davidson, Sask., and Charlie Leech, assistant secretary,
Canadian Hereford Association check some of McArthur's calves after weighing.

Grain-Livestock Combination

NEIL McARTHUR of Watrous, Sask., still grows wheat as his main enterprise, but there's enough of the canny Scot in him (he was born in Argyllshire) to keep him from putting all his eggs in one basket. As a secondary operation, Neil runs a 75-head herd of purebred Herefords, plus enough Yorkshire sires for family use. It all helps to keep the pot boiling when wheat deliveries are tight.

About one-half the 960-acre McArthur farm is sown to crops each year, mostly Thatcher and Ramsay (durum) wheat, oats and Parkland barley. Some of the oat crop is sold as seed and some of the Parkland as malting barley. The remainder of the land is taken up with summerfallow and grass. In addition to this, Neil leases another quarter section for pasture purposes. His favorite forage mixture contains brome, crested wheat-grass and Ladak alfalfa.

A firm believer in planned livestock improvement, Neil is leader of the Watrous 4-H Beef Club, and his Hereford herd has been on Federal-Provincial performance test for the past 2 years.—C.V.F. V

Keep Soil Fit to Produce

ALL manure produced in the barn and feedlot should be spread on the land, says Prof. J. A. Hobbs of Kansas State College. Even in dryland areas, experience has shown that the productivity of poorer soils—eroded, salted or poorly-drained—may be increased considerably by manure.

Kansas experiments also showed that although a relatively small amount of nitrogen was applied (13 to 20 lb. of actual nitrogen per acre) it reduced organic matter losses. Heavier applications of nitrogen would probably have maintained organic matter at even higher levels. Large applications of nitrogen, properly balanced with other nutrients, have also overcome many of the bad effects of straight grain or continuous cropping programs.

The following management practices were found to keep up production and still maintain organic matter:

1. Row crops were replaced by sod crops only where these crops met the need of livestock and provided satisfactory farm income, or were needed for erosion control.

2. Summerfallow was needed in dryland summer rainfall regions to maintain yields at a higher level.

3. All crop residues and all manure produced on the farm were returned to the soil.

4. Where soil tests indicated a need, nitrogen fertilizer, properly balanced with other nutrients, not only increased the profit but helped to maintain organic matter.

5. Cultivation was kept to a minimum consistent with adequate weed control and good seedbed preparation.

6. All practical means were used to keep erosion to a minimum. V

Don't Bury Brome Too Deep

IF you find the brome in your brome-legume pastures is not catching, it might be that your mixture is seeded too deep and the small-seeded brome stays buried. At the Ontario Agricultural College they have compared mixtures of 10: 1.5: 1.5 of alfalfa, ladino and white Dutch clover with either 15 lb. of brome or 12 lb. of orchard grass. Over 3 years of testing, the brome-legume mixture produced 59 lb. more beef per acre than the orchard grass-legume.

D. L. Parks of Kemptville suggests when you seed brome that you get off the tractor at every turn or so and make sure you can see some of the grain above ground. If the odd kernel here and there is not visible, you are seeding too deep. Drill in the grain and fertilizer, then roll the field, put the pasture mixture in the grain seedbox and let the oats run open. Mix in ½ bushel of oats with the pasture mixture so it will feed evenly through the drill. A ¾" chain attached to each rear corner of the seed drill frame gives the seed a light covering of soil. On lumpy soil you need a heavier chain or log. Finally, roll the field, but do not harrow it.

Be sure to remove the ends of the hose from the disk to avoid burying seed too deeply. If the day isn't windy, you can remove the hose. V

SOILS AND CROPS

Infantry in Grasshopper Battle

MANY people are unaware their fields harbor grasshoppers before the damage occurs, according to L. G. Putnam of the Saskatoon Agricultural Research Laboratory. This is because they have never realized that the way to find grasshoppers is to go out and inspect the whole area on foot. In fact, early in the season it may be necessary to inspect plants from low down at a standstill. Failure to observe an outbreak may lead to the error of spraying areas that are not infested.

Control campaigns can be improved still further by spraying not only the crops invaded and threatened by grasshoppers, but also the places where they come from. There is reason to believe that repeated treatments by insecticide are often required not because a new lot has hatched, but a new lot has moved in.

Some people become discouraged because they believe they may be swamped by a later migration of flying grasshoppers from some distant place. Mr. Putnam considers the bad dream of migration may never happen, and points out that the last serious flight from the United States into Prairie Provinces was in the late summer of 1939. The Americans have worked to see that such migrations do not happen.

There is no use in thinking that the grasshopper outbreak will eventually subside, and having the idea that grasshoppers in the adult stage will go elsewhere. Outbreaks must be tackled to gain proper control, and this can be done best after close and careful observation. A half-day spent looking the situation over, and another half-day or less on the sprayer, are better than a whole day on a sprayer without a careful reconnaissance on foot. ✓

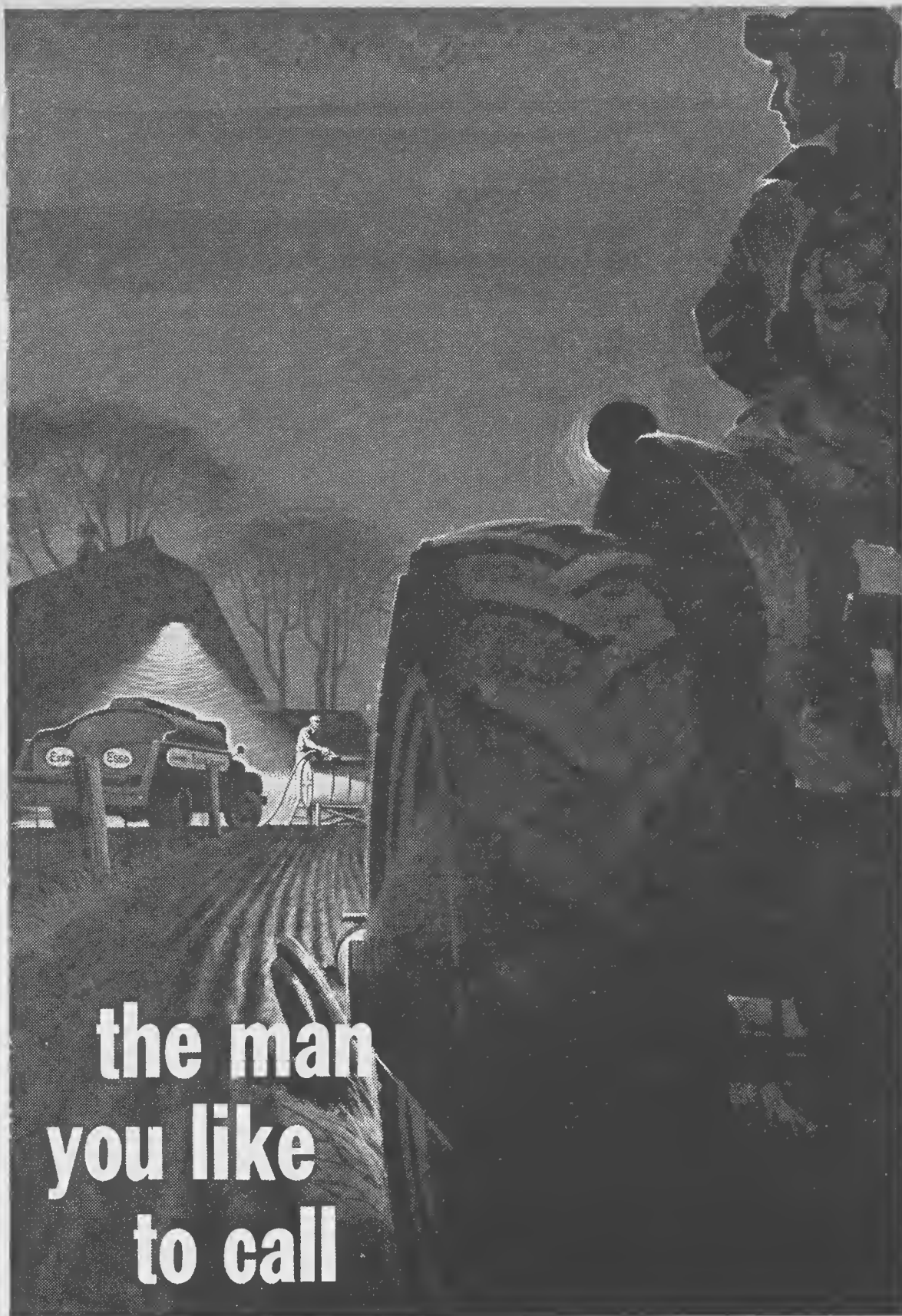
Selkirk and Thatcher Compared

SELKIRK wheat has outyielded Thatcher by 4 bushels per acre over a 7-year period in tests conducted by the cereal breeding section of the Canada Department of Agriculture. Selkirk is the predominant bread wheat in the so-called rust area of Manitoba and the eastern third of Saskatchewan. Thatcher predominates west of the rust area.

The tests were made on weed-free summerfallow under good growing conditions at seven stations in the rust area, including Winnipeg, Morden, Portage la Prairie, Brandon, Gilbert Plains, Indian Head and Melfort. Here's the scoreboard:

	5 moist years	2-dry years	All 7 years
Selkirk	42.5 bu.	41.6 bu.	42.2 bu.
Thatcher	36.6 bu.	41.8 bu.	38.1 bu.

Narrowed to the Red River Valley in the rust area, Selkirk vastly excelled with a 7-year average of 41.4 bu. per acre, compared with a 34.6 bu. average for Thatcher. The tests as a whole gave higher yields than on the average farm, but they show accurately the relative yielding ability of the two varieties. ✓



the man
you like
to call

because he makes a business of helping
you keep to schedule

Farmers like doing business with the Imperial Esso Agent, because he knows how valuable your time is.

Depend on him for reliable service whether you are busy around the farm or out in the fields. Here is a man backed by farm-proven products . . . with up-to-the-minute technical know how . . . a man who knows the kind of service *you* want to keep things running smoothly all year round.



call your Imperial Esso agent

the man you like to call

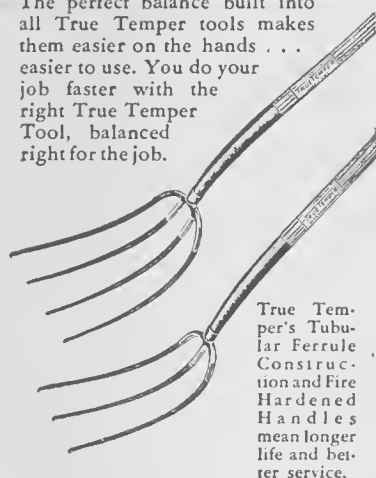
ALWAYS LOOK TO IMPERIAL FOR THE BEST

THE SECRET IS IN THE BALANCE

TRUE TEMPER TOOLS

ARE BALANCED RIGHT TO MAKE YOUR JOB EASIER

The perfect balance built into all True Temper tools makes them easier on the hands . . . easier to use. You do your job faster with the right True Temper Tool, balanced right for the job.



True Temper's Tubular Ferrule Construction and Fire Hardened Handles mean longer life and better service.

AT YOUR HARDWARE STORE

Made in Canada by

WELLAND VALE

I GOT RID OF MY RUPTURE

right at home. Permanently. Without cost. NOT a truss. No surgery. No injections. Send for FREE details today. No obligation.

JOHN MORTIMER
Box 128CG, Elora, Ontario

SOILS AND CROPS

Shallow Tillage For Summerfallow

SUMMERFALLOWING need not be a hazardous operation. Where trash is conserved, the danger of serious wind erosion is reduced, and soil with trash anchored at or near the surface not only absorbs rainfall, but retains that moisture more effectively.

D. A. Rennie of the University of Saskatchewan advises farmers to preserve as much trash as possible, and quotes experiments at Lethbridge to show that depth of tillage is important. A one-way operated at a depth of 3" conserved as much as 70 per cent of the original trash cover, but operating at a depth of 5" on the same field, the trash cover dropped to 40 per cent. Shallow tillage also favored maximum moisture storage in the soil.

Another thing found at Lethbridge was that too slow or too fast a speed of operation decreased the trash cover, but a one-way traveling at 4 m.p.h. conserved a maximum amount of straw. Sub-surface cultivators, such as the blade or rod-weeder, were the most effective in maintaining trash cover. Heavy-duty cultivators, although less efficient than the blade, were much superior to disk-type machines. After three operations with a one-way, only 12 per cent of the original trash remained on the surface.

Dr. Rennie says the summerfallow program requires two or more implements in combination to keep trash cover and ensure a uniform depth of tillage. The one-way disk, with sub-surface cultivators or heavy-duty cultivator, appears preferable.

The first step is a uniform depth of cultivation of 3" to 4" in the spring when soils are moist. Hard

layers in the surface soil can be loosened and good tilth promoted. The subsequent operations should be as shallow as possible, but sufficient to control weeds. Where the trash cover is sparse, the disk should be left in the shed, and if little or no trash remains from the previous crop, it may be better to consider using herbicides as an alternative to tillage. A field can be sprayed at least three times as fast as the customary tillage, and the small additional cost for chemicals may be well worth it.

Farm Ponds Are Versatile

FARM ponds are handy for watering livestock, supplying the home, protection against fire, irrigation and recreation, and may help with flood control if the runoff is not too heavy. Here's some advice on establishing ponds from Ross Irwin, agricultural engineer at O.A.C., Guelph.

Locate the pond as close as possible to the place where you will need it most. It should be near the house and buildings for recreation and fire protection, but centrally located for pastures and irrigation. Used domestically, the water should be tested frequently for contamination, and filtered before use.

Water requirements for anything but irrigation are quite small. Livestock need about 500 gallons per animal per month, and a minimum of 75,000 gallons should be available for fire protection. On the other hand, 270,000 gallons of surface run-off are needed for each irrigated acre, or a pond 10 feet deep and 2 acres in size to irrigate 20 acres.

There are two main types of pond: the excavation or dugout and the impounding type, which requires a dam. The cost varies with shape, type and

what machinery is available. Ponds should be fenced to protect livestock, and children should be kept away until they can swim properly. Hang a life preserver in a convenient place for emergencies.

Potatoes That Housewives Prefer

TO find out what kinds of potato the consumer prefers, P. J. Peters and Lawrence Jorgenson of the Manitoba Department of Agriculture conducted a survey, using four varieties. Each was given a code letter, so that they could not be selected by name.

Netted Gem was selected over the others. The new Norland variety was second choice, and the white type (either Manota or Cherokee) came third. Pontiac was in fourth place.

With two varieties to choose from, it was found that the average housewife preferred Norland to Pontiac because of the shallower eyes, more uniform type and less tendency for the skin to scuff. In cooking tests, Netted Gem, Manota and Cherokee were preferred to the red varieties for deep fat frying. Pontiac was the choice for a boiling potato, and Netted Gem led the field for baking.

The potato specialists summarized their findings by saying that the housewife would buy the white varieties if they were available. Over 99 per cent of the women in the test said they would like to buy potatoes by variety name.

Killing Hosts for Rust

PART of the life cycle of stem rust occurs on the common barberry, and part of the leaf rust's life cycle on the European buckthorn. Get rid of these two shrubs, advises the Ontario Department of Agriculture.

Large hedges and fence rows containing the barberry and buckthorn are best removed by a bulldozer. Scattered shrubs are most economically destroyed by brushkillers, such as 2,4-D and 2,4,5-T combined. Isolated bushes in terrain too rough for spraying can be treated with dry Atlacide or Ercocide at 2 to 4 lb. around the base of each bush. These last two chemicals are poisonous to livestock.

The Ontario Department of Agriculture assists county programs.

Starves Pest And Improves Soil

USE early tillage as a weapon in grasshopper control, and you will be practicing good soil management at the same time. Earl Johnson, Saskatchewan Department of Agriculture, says that by working summerfallow early, instead of leaving it until mid-June or early July, you make as much as a 3-bushel difference in the following year's crop. Early tillage will also starve grasshoppers infesting stubble fields.

He suggests that it is better to refrain from cropping stubble land where grasshoppers are apt to be a serious threat. If the grasshoppers are present, the crop may be poor and you are left with a bare summerfallow for the coming year.

Stran-Master



Livestock shelter plus feed storage—Open shed for shelter and feeding is combined with totally enclosed area for hay and grain storage. A 48' x 48' Stran-Master like this, in Stran-Satin Color, takes an initial investment of only 25% down on five year purchase plan.



Machinery storage plus repair center—Partly open side provides easy access to spacious storage area. Repair center and tool shop is in enclosed section at left. Initial investment of only 25% down for this 48' x 64' Stran-Master with choice of six colors.

Lowest Cost All-Steel Farm Building ... Now With Baked-On Colors

Stran-Master, priced at less than many wooden pole barns, now offers a choice of six factory-applied vinyl aluminum color coatings—blue, bronze, grey, green, rose or white.

The multi-purpose Stran-Master serves any farm storage or shelter need . . . ideal for stanchion barns or livestock loosehousing. Specialized buildings are also available for grain storage or for any hog or poultry production requirement. Any size or design can be erected in a few days by dealer's crew or your own. Contact your nearest Stran-Steel dealer for more information.

HERE'S WHERE TO FIND YOUR NEAREST STRAN-STEEL DEALER:

ALBERTA
Steel Structures & Bldg. Products, Ltd., Lethbridge (Phone 7-8888); Calgary (Phone CH 3-4382); Edmonton (Phone 3-0752)
MANITOBA
Maple Leaf Construction, Ltd., Winnipeg (Phone Sunset 3-7091)
ONTARIO
Astra Steel Structures, Ltd., Hamilton (Phone Liberty 4-2867)
Claydon Co., Ltd., Fort William (Phone 2-0651)
QUEBEC
Hill-Clark-Francis (Quebec), Ltd., Montreal (Phone Regent 1-6451); Noranda (Phone Roger 2-4355)
SASKATCHEWAN
Roy Wright, Ltd., Regina (Phone JO 9-8858)



Dept. CG-3
STRAN-STEEL CORPORATION
Division of
NATIONAL STEEL CORPORATION

Clears trees

Mounted on a D8, this Rome K/G Blade splits larger trees into smaller segments for easy felling. It also piles trees and underbrush into windrows.



CAT D8 TRACTOR:

Plows new land

The same tractor pulls the largest size disc harrow—a Rome TYH 16-36—covering 2.3 acres per hour. The discs penetrate to a depth of 12 inches.



NOW—AN EVEN MORE POWERFUL D8

- New D8 (Series H) has turbocharged Cat Diesel Engine—225 HP at flywheel—180 HP at drawbar on direct drive models.
- Choice of direct drive with oil clutch and 6-speed transmission, or torque converter drive with 3-speed transmission and 4:1 torque multiplication.
- New, double-reduction final drive gears provide extra ground clearance (19 $\frac{7}{8}$ "'), and are pressure-lubricated with filtered oil—as is entire power train.
- Many other advantages, including in-seat starting, live power direct from engine for cable control, lifetime lubricated track rollers and idlers.

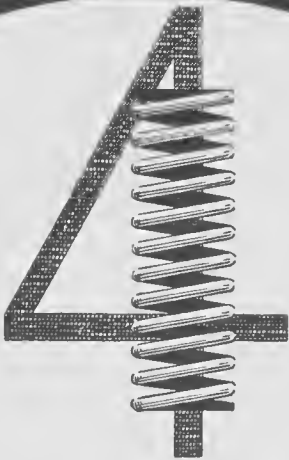
Whether your field of work is farming, contracting or agricultural engineering, ask your Caterpillar Dealer to show you the equipment best fitted to your needs. He brings you the world's most complete selection of tractors and matched tools for land improvement.

CATERPILLAR

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

**EQUIPMENT
FOR LAND
IMPROVEMENT**

Chevy's
got it!
GLIDE-RIDE STABILITY

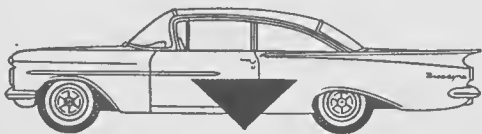


FULL COIL SUSPENSION

Chevrolet puts deep, easy-flexing coil springs to work for your comfort. With Full Coil Suspension you're cradled in velvety, floating comfort over every road you travel.

LOW CENTRE OF GRAVITY...

KEEPS YOU FIRM ON THE TIGHTEST TURNS!



Chevrolet's low centre of gravity has a new road hugging stability. You cling low and firm to the road even on the tightest corners. For the most sure-footed ride ever, try Chevy today!

CHEVROLET

GO CHEVROLET—
FOR EXTRA VALUE!

H

It's fastest...safest



FOR SALE AT CANADIAN NATIONAL
OFFICES EVERYWHERE IN CANADA.

PLOWSHARES LAST LONGER

Plowshares (and dozens of other farm implements) last longer with Colmonoy brand hard-facing than with any other kind, and with less work and less cost, too. Colmonoy Sweat-On Paste is applied with a brush, fuses into the most abrasion resistant surface you can buy. Made of chromium boride crystals (almost as hard as diamonds), it alloys into the surface under oxy-acetylene torch heat. Our Wallex hard-facing rod protects implement points, is tops in wear resistance. Ask your welding shop or write direct.



SPECIAL OFFER

To introduce Sweat-On Paste and Wallex to you, a pound of each (enough to do twelve 12-inch shares) is being offered for only \$9.55. Offer expires July 15, 1959. Send check with order for postpaid delivery, or get it C.O.D. Ask for free farm hard-facing guide.

WALL COLMONOY
(Canada) Ltd.
3001 Broadway
Montreal East, Quebec

HORTICULTURE

Irrigation In the Garden

THE garden can be irrigated either by the sprinkler or furrow method. Sprinkler irrigation is growing steadily more popular because of its ease of operation and suitability to rough land, which offset the main disadvantage of higher cost.

The furrow method, in which water runs down furrows between the rows, is very satisfactory on land with a gradual slope in one direction. On steep or irregular slopes it becomes difficult to irrigate by furrow, and more expensive if the land has to be reduced to a gradual slope.

There are several ways to use the furrows. The simplest is to cut holes in a ditch bank and allow the water to flow from the supply ditch into the furrows, says H. C. Korven of the Swift Current Experimental Farm, Sask. Alternatively, small culverts in the ditch bank provide a more permanent system and better control of the size of stream than just a plain hole in the bank. Pieces of 1" or 2" hose or pipe make good culverts, or they can be made by nailing laths together.

A further improvement in control is through the use of siphon tubes. These are more expensive than small culverts, but reduce the labor involved because they are not fitted into the ditch bank. In addition, they give a still finer adjustment of the stream size. Best of all is the gated pipe, which replaces the supply ditch and has adjustable gates, usually one for each furrow.

Make sure you have an adequate water supply. An average dugout will irrigate about an acre, and a well with an output of 50 gallons of water per minute can irrigate a 1-acre garden in 4 days of 10 hours each. Check well water for its salt content before irrigating.

It's necessary to provide drainage for excess water from furrows, but not when using sprinklers. A drainage ditch should be cut at the lower end of the garden to carry away water from the furrows.

Chickweed Killer Successful

THERE'S a chance that a chemical will be released this year to control chickweed in the home garden. Known as neburon, it has proved highly satisfactory in experiments conducted by Dr. W. G. Corns of the University of Alberta.

He reported that neither Kentucky bluegrass nor creeping red fescue suffered harm from neburon, when it was applied at rates sufficient to kill chickweed. The results were the same outside and in the greenhouse.

Dr. Corns says 1½ ounces of neburon in 2 gallons of water can cover 1,000 square feet.

Every precaution should be taken to keep the chemical away from flowers when spraying, but some of them

showed little damage at the recommended rate. A single test on ornamental flowers left ageratum, aster, delphinium, lilies, marigold and nemesis unharmed. Pansy and zinnia were slightly damaged, and there was severe injury to alyssum and phlox.

In practice, aim to hit all the chickweed while allowing as little chemical as possible to fall on ornamental plants, advises Dr. Corns.

Interplanting Young Orchards



[Guide photos

Strawberries growing in peach orchard.

JOE WISMER is convinced that it pays to interplant young orchards. This Jordan, Ont., fruitgrower harvests up to 10,000 quarts of strawberries per acre out of young peach orchards, using high-yielding varieties like the new Redcoat. He eliminates hand-weeding of the berries by fencing the fields, and turning in geese. His flock of 22 birds gobble up weeds, don't touch the berry plants.—D.R.B.



Geese can clean up weeds in orchard.

Spread Planting Times

EXPERIENCED gardeners make a habit of planting their main flowers and vegetables at intervals of 2 to 3 weeks. In this way, they have something at its very best from early summer until the fall frosts.

Don't be in too much of a hurry to put the seed into the ground. Be sure soil and air have turned warmer, that the soil is in condition to work, and not packed down or muddy. Even with a late start, it is surprising how plants can catch up with those planted weeks earlier but held back by cold weather. So remember, don't start too early or stop too soon.

HORTICULTURE

Home-Made
Pea Sheller

by HERMINIE RIOU

ONE of the handiest and most effective time-saving devices I used last summer was a pea sheller. We had obtained the plans from the Canada Department of Agriculture, Ottawa, after we had seen one at work at some of our neighbors. These plans are free. If your men folks are handy with tools, and most men think they are, now is the time for them to get busy in their workshop, so as to be prepared when the next canning season rolls around.

The material costs only from \$10 to \$15, more or less, depending on how much material you may already have on hand. It works on much the same principle as a grain separator but at a greatly reduced speed. It is quite simple to make.

The sheller will handle half a pail of pods at a time and they will be emptied usually within from 1 to 2 minutes. To do the best job, the pods need not be hard but well rounded. In the process, the pods are shattered, but oddly enough the peas are not damaged. I have figured it works at least eight times as fast as if done by hand. I still recall with a smile our spontaneous shout of triumph as the first pea shot out of the contraption.

The plans called for a shallow drawer. However, after the first attempt at separating the peas from the

"chaff," it became evident that a simple slight improvement was in order. The bottom of the drawer was raised at the far end to give it an incline, so the shredded pods remained where they fell, while the peas rolled down at the other end.

It is meant to be hand-operated, but if you have a small electric motor, a pulley may be substituted to good advantage.

Thanks to my pea sheller, canning our winter's supply is not half the chore it used to be. ✓

Time for
Begonias

LATE May and early June are good times to set out tuberous begonia plants in the garden, after the danger of frost is over. They like the morning sun, but should be shaded from the noonday sun by trees, shrubs or buildings. Tuberous begonias need a mellow soil, rich in organic matter and with good drainage.

Suitable soil is provided by ordinary garden loam, a liberal dressing of an inch or more of sharp, gritty sand, and 3" or 4" of well-rotted leaf mold or horticultural peat. All this should be thoroughly dug to a depth of about 6".

If plants have been started indoors, and clay pots are used, remove them from the pots with the ball of roots and place them deep enough to cover the tuber with about an inch of soil. The lower leaf should face the front of the bed, and the plants should be spaced about 18" apart. ✓

Right
For Pickling

PICKLING cucumbers are grown quite easily in the average garden. The Saanichton Experimental Farm, B.C., advises you to choose a variety specifically for pickling. It is small, somewhat thicker and tougher on the surface, usually lighter in color, earlier and more productive than the slicing type.

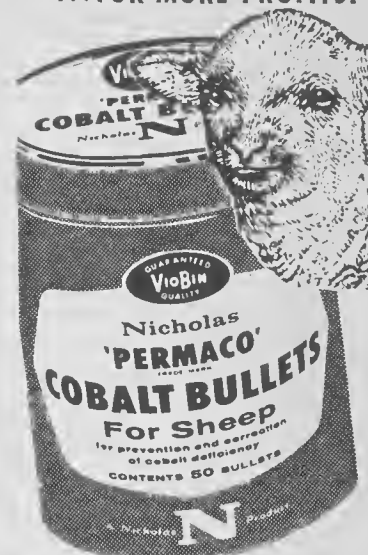
When the harvest comes, consider what type of pickle you want. If they are to be made into small, whole pickles, they must be harvested every 1 to 2 days. If the interval is longer, the cucumbers will grow to dill size in about 4 days. Be sure to remove every cucumber, even if some are too big, otherwise they will drastically reduce the crop of pickle-size fruits. ✓

Cost of Strawberries

THE average cost of producing strawberries is \$785 per harvested acre, and 61 per cent of the cost is for labor, according to a 3-year study carried out by the Ontario Department of Agriculture.

Some 49 per cent of the total average costs went into harvesting and marketing, mostly for labor and containers, and in the fresh fruit trade the percentage was even higher. Labor requirements of 759 hours per acre (80 man-work units) are three times as great as for peach production, and almost 100 times that for field crops like spring grain and hay. More than half the labor time is used in picking the fruit. ✓

NEW!

FOR MORE PRODUCTION
...FOR MORE PROFITS!

'PERMACO' COBALT BULLETS
Give Your Lambs A Full Year's
Supply Of Cobalt in One Dose!

Your sheep need COBALT constantly for health and growth. In one of many hundreds of field trials, deficient sheep dosed with 'PERMACO' COBALT BULLETS gained an average of 12½ lbs. more than undosed animals. The cost per sheep is so low, it doesn't pay to take chances of not getting fastest weight gains and best wool production possible.

Get 'PERMACO' COBALT BULLETS at
Feed and Drug Stores
Canadian Distributor:
VioBin (CANADA) LIMITED
St. Thomas, Ont.

"If you can use a
hammer and saw . . .

. . . you can make yourself a Fir Plywood Rigid Frame building. It's fast and simple to put up—and cheap, too."

"How do the costs work out, John?"

"Just under a dollar per square foot of floor area for labour and materials."

"Say—that's cheap enough. Looks a roomy building, too."

"Sure is. You can build a Rigid Frame shed any length you want and up to 39 feet wide. Gives you a big, clear span—no posts to get in the way. Just right for housing machinery."

"I reckon a building like this can withstand some hard knocks, too. I know fir plywood—it's strong."

"It is—in fact, it's the strength and rigidity of fir plywood that makes a simple construction like this possible."

"Where do you get the plans?"

"From your lumber dealer . . . free!"

Free plans of fir plywood Rigid Frame farm buildings up to 39 feet wide are available from your local lumber dealer who can supply all the materials needed. Or write to . . .

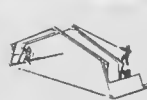
**PLYWOOD MANUFACTURERS
ASSOCIATION OF B.C.**

550 Burrard Street, Vancouver 1, B.C.

All Fir Plywood and Western Softwood Plywood marked PMBC is made with Waterproof Glue



The Rigid Frame system is a new way of building. It is simply a series of arch rafters formed with four pieces of lumber joined together with fir plywood gussets.



The arches are nailed together on the ground and then tilted into position. They are set two feet apart and held in place with fir plywood wall sheathing.



The single-skin roof is formed by nailing 3/8" plywood panels to frame. Space between the arches may be used for windows. The whole job is simple, speedy.



A Rigid Frame poultry house in B.C. Elsewhere, farmers are using Rigid Frame buildings for cattle barns, hog houses, machine sheds, tobacco pack barns and fruit storage sheds.



Low cost, easy-to-erect Rigid Frame buildings are ideal for community projects such as churches, halls and curling rinks. This fine church in Cookesville, Ont., was built by the congregation.



The wide, clear span of the Rigid Frame building is shown in this aircraft hangar at Simcoe, Ontario. Fir plywood clad buildings offer high resistance to wind and hail damage.

"Nothing beats Gillett's for teat cups"



Mr. William Glass, R.R. No. 1, Malton, Ont. places the teat cups of his milker into a solution of Gillett's Lye to kill any disease organisms picked up during milking. The Lye Method of cleaning and disinfecting assemblies is widely recommended as most effective and inexpensive.

Mr. Glass operates a modern, progressive dairy farm consisting of 200 acres near Malton, Ontario. He milks an average of 25 Holsteins the year 'round. Strict sanitation practices are scrupulously followed to prevent any profit loss through disease. Gillett's Lye, Mr. Glass has found, does more cleaning jobs, more effectively, and more economically than any other products. He uses Gillett's Lye for milk utensils, milking machines, bulk tank, air lines and milk house. In his own words Mr. Glass says, "Truthfully, I couldn't get along without Gillett's Lye. I use it everywhere."



FREE!

Sixty-page booklet prepared by eminent Canadian Bacteriologist. Tells you how to effectively disinfect at low cost. Covers dairy herd, stables, milking machines, utensils. For free copy, write, Standard Brands Limited, 550 Sherbrooke St. W., Montreal.

IN REGULAR SIZE AND MONEY-SAVING 5 LB. CANS.

POULTRY

Small Layers For Big Production

THE small, heavy-laying chickens, fed a high-energy ration of wheat, are proving to be the most profitable poultry, according to Prof. J. B. O'Neil of the University of Saskatchewan.

He explained that 4 lb. birds have been better converters of feed into eggs than 6 lb. birds. At a laying rate of 40 per cent, 4 lb. birds averaged 6½ lb. of feed per dozen, compared with 7¾ lb. required by the heavier birds. At a laying rate of 65 per cent, the smaller birds needed 4½ lb. of feed per dozen eggs, compared with 5.4 lb. for the 6 lb. birds.

Prof. O'Neil pointed out that this means not only that a smaller bird is a more economic layer, but small birds laying at a high level are the most economic of all. At a laying rate of 40 per cent, 146 eggs per bird per year, 100 four-pound birds need 21 lb. of feed per day, while 100 six-pound birds need 25.8 lb. of feed to lay at the same rate. But at a laying rate of 65 per cent, 237 eggs per year, the 100 four-pound birds need only 24.6 lb. of feed daily. Egg production has increased by 91 per bird, while feed requirement increased only 3.6 lb. daily. If they were laying at 65 per cent, the 100 six-pound birds would be needing 29.3 lb. of feed per day.

The saving through having the smaller birds was 2¼¢ per dozen eggs. Multiply this by 20 dozen eggs a year times 1,000 birds, and a handsome extra earning of \$450 could be obtained.

Life Among The Cannibals

CANNIBALISM can start at any age in poultry and is most common in the light breeds. It can vary from just a little harmless feather pulling and toe picking, to the more serious head, wing, tail and vent picking. The latter often leads to disembowelment and death.

Flock management is the key to prevention and control of cannibalism. R. H. McMillan, Alberta's poultry commissioner, suggests you watch for overcrowding, overheating, poor ventilation, lack of water and feed-hopper space, and exercise to avoid the common causes of the trouble. Feed deficiencies are often associated with it, and the addition or increase of oats in the ration is beneficial. Alfalfa, greens and mangels in small amounts at frequent intervals will help to keep birds from becoming bored.

Pine tar or a commercial "stop pick" compound smeared on the backs and wings of birds, including those that are bleeding, will discourage the vice at least temporarily. Beak guards and debeaking prevent cannibalism, but are recommended only as a last resort.

Granite for Poultry Grit

ON Kootenay Lake, in southeastern B.C., a new plant has been established to manufacture poultry grit from the hard granite rock of the Selkirk mountains. The granite chosen for this type of product is what is termed a "neutral" rock containing no active minerals which might injure the birds. These same requirements are as necessary for stucco dash, where the presence of highly soluble iron ores would cause color streaks on the walls.

The capacity of the three-storey plant is about 50 tons of poultry grit every 8 hours. The rock is blasted loose at a point above the plant, then bulldozed into hoppers which feed the big chunks of granite into a jaw crusher on the first level. Final reduction of the mass occurs at the cone crusher, one floor lower down, from where the grit travels to screening units below for separation, and thence to storage bins and sacking.

Particles of poultry grit serve as a chicken's teeth. The average chicken uses 2½ lb., and a turkey about 5 or 6 lb. of grit per year. Some poultrymen have the stuff mixed right in with the ration at their local feed plant.

According to most extension authorities, it is important that a good poultry grit consist of insoluble material. Apart from acting as bird "teeth," grit also cuts down on feed consumption.—C.V.F.



Blocks of raw granite entering jaw crusher on top floor of the new poultry grit plant at Kootenay Lake, B.C. It is screened and bagged on lower floors.

Alberta's Largest Hatchery

STEWART'S
R. O. P. SIRED **CHICKS**

Turkey Poults - Ducklings - Goslings

CLEARANCE PRICES

For Immediate or Future Delivery to July 1st	Unsexed	Pullets
White Leghorns	\$14.95	\$29.50
Leghorn X Hampshires	14.95	29.50
All Heavy Breeds	15.95	24.50

On orders less than 100 add 1¢ per chick.

Extra Quality Nicholas Broad-Breasted Bronze Turkey Poults \$70 per 100.

WRITE FOR 1959 ILLUSTRATED CATALOGUE AND PRICES

STEWART ELECTRIC HATCHERIES

502C 12th Avenue West, CALGARY, ALBERTA

FAST RELIEF FOR
**ACHING
MUSCLES**

MINARD'S
"KING OF PAIN"
LINIMENT



picture yourself in this bright modern

¹⁸⁻⁸ Stainless Steel kitchen

CONTAINING INCO NICKEL

Glistening brightly from every side... from counter tops, from the range, the built-in oven, the sink, even the pots and pans... stainless steel containing Inco Nickel. This is a kitchen to cheer the heart of modern homemakers; so convenient, so easy to clean—and *keep* clean—and so good-looking.

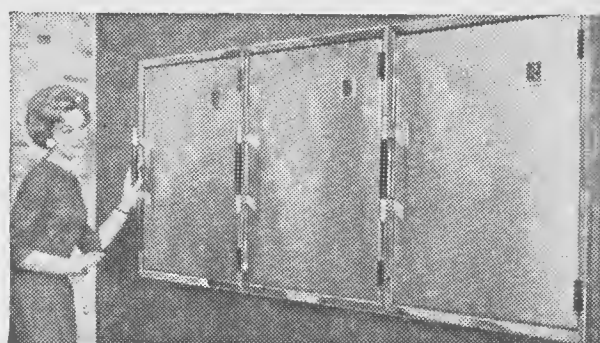
Stainless steel won't chip or stain; it's practically immune to rust and corrosion; and it has a rich, silvery lustre that stays bright and beautiful for years.

Nickel helps give stainless steel this lustrous beauty and exceptional resistance to rust and corrosion... helps make its fabrication easier. That's why Canadian manufacturers use quality Inco Nickel to produce quality Canadian stainless steel products.

Write for a free copy of "What to remember about Stainless Steel."

**THE
INTERNATIONAL
NICKEL**

COMPANY OF CANADA, LIMITED
55 YONGE STREET, TORONTO



Nickel-containing stainless steel keeps the new built-in refrigerator and freezer units looking bright and beautiful.

QUALITY
CANADIAN
PRODUCTS
CONTAINING
QUALITY
INCO[®] NICKEL



Food particles wipe off easily from pots and pans made of nickel-containing stainless steel.

SAVE 50% ON GENUINE SWISS 17-JEWEL WATCHES

Ideal All-Occasion Gifts

Outstanding **\$9.95**
VALUE



Ladies' 17-Jewel, unbreakable main-spring, expansion bracelet, square face, white or natural gold color. Attractively boxed.

Men's 17-Jewel, centre second hand, expansion bracelet. In natural gold color. Gift boxed.

LIMITED QUANTITY—
RUSH YOUR ORDER TODAY!
AVOID DISAPPOINTMENT.

1 year guarantee against factory defects.
Complete satisfaction or money refunded.

Money Order, Cheque or C.O.D. Orders Accepted

ALLEGRO TRADING COMPANY

407 McGill St., Montreal, Que.



POULTRY

When Poult Leave the Brooder House

WHEN turkey poults are 6 weeks old they can be shifted gradually from the starter to the grower ration, so the change is completed at 8 weeks. The Alberta Department of Agriculture points out that there are feeds on the market containing medicants to guard against blackhead and/or coccidiosis. They can be used by any turkey raiser, and

are in quite wide use on premises where these diseases have been a problem in past years.

As soon as weather permits, and you want to move the poults out onto the range, it helps if they are allowed out of the brooder house for a short hardening-off period during the day in preparation for range life. Where this is not practical, you can keep the brooder as cool as possible, and use veneer or tarpaper to close one, two or three sides of the range shelters.

Range shelters need consist only of a roof and roosts, say the Alberta poultry specialists. Some raisers use only roosts and others just let the birds sit on the ground at night. Roosts with a roof are generally recommended because they give the birds some protection against bad weather. There are two main hazards in using open roosts or leaving birds to sit on the ground at night. There may be prolonged wet and cold weather, resulting in heavy losses, particularly just after the poults are put out on range; or there is the possibility of an early blizzard in the fall, when losses can be very heavy, especially if the snow drifts over huddled turkeys and smothers them.

A GOOD range should provide about an acre per 100 birds. Alfalfa makes the best range, but grass-legume mixtures, rape or cereal grains can be used. Never let the range become coarse, but mow it during the growing season. Move range shelters and feeders for better use of the range and to reduce risk of disease. A rotation giving birds the same range only once every 3 years is highly recommended. If you use self-feeders, have the tops tight to keep rain out of the feed. Water is usually supplied through automatic or semi-automatic waterers.

If the turkeys are to be reared in confinement, you might want to consider large sheds or pole-type barns. There is also the combination range-confinement system, under which birds are ranged in nice weather, with sheds or pole barns available for bad weather. This suits the birds, but means more labor and duplication of range equipment. The points in favor of confinement rearing are greater ease of feeding and watering, particularly late in the season, the elimination of predator losses, and protection against weather hazards. V

Fat for Layers

FAT plus high energy laying rations does not make thin-shelled eggs. At the Central Experimental Farm, Ottawa, they fed some laying hens 3 and 6 per cent fat, and others a ration without fat, and there was no difference in the quality of shells.

High energy rations reduce the number of pounds needed to produce a dozen eggs. Fat is added as a source of energy, and also reduces dustiness and improves the texture of formulated feeds. V



PIONEER-CAFETERIA'S COMBINED FIELD FORCES ASSURE FEEDERS
OF GREATER ASSISTANCE IN FARM BUSINESS PLANNING



Livestock and poultry management programs are being constantly improved through Pioneer-Cafeteria field service

Our rapidly changing farm economy is creating a greater demand for specialized information and services. Feeders today are good business men and women. They recognize the value of being fully informed on new developments in feeding and management practices, disease control, market evaluation and planned credit programs.

Pioneer-Cafeteria district managers and service representatives are trained to give you this information. Their farm and college backgrounds and our continuous training plan fit them for the job. Pioneer-Cafeteria is constantly keeping this fine team up-to-date on all new developments to give you the information for successful farm operation.



PIONEER-CAFETERIA FEEDS LTD.

TORONTO • MONTREAL • WINNIPEG • CALGARY • SAINT JOHN, N.B.



New Style Water Troughs



[Guide photos
Trough with covered valves and heater.

A NEW type of automatic two-way heated watering trough for farms and feedlots is this factory-made model shown above. Heating elements and float valves are located under a metal hood which covers the center of the trough, out of harm's way. Compare this with the older type with open float valve (below).—C.V.F. ✓



Standard type trough with open valve.

Work from One Kilowatt Hour

DO you sometimes wonder just how much electricity a piece of equipment is using? Each of these chores can be done by one kilowatt-hour of electricity and the right equipment:

1. Perform 1 large weekly washing.
2. Run a household refrigerator 1 day.
3. Run a sewing machine 2 months.
4. Ventilate a 25-cow dairy barn half a day.
5. Milk 20 cows.
6. Separate 2,000 lb. of milk.
7. Cool 10 gallons of milk 1 day.
8. Pump and force 750 gallons of water under pressure to any faucet on the farmstead.
9. Grind 60 to 300 lb. of grain.
10. Hoist 2 tons of hay.
11. Cut and elevate 1 ton of silage.
12. Saw ½ cord of wood.
13. Shell 20 bushels of corn.
14. Mix 2 cubic yards of concrete.
15. Clean and grade 100 bushels of grain.
16. Paint 700 square feet of surface with pressure sprayer.
17. Run a ¼ h.p. motor at full load 3 hours.
18. Run a 3 h.p. general utility motor at full load 20 minutes. ✓

Tips on Tuning-Up

Beware of tune-up bargains. Some of them are perfectly good, but there are certain things that must be done in a first-class tune-up, so it is in your own interest to shop around for the genuine bargain. Here are the important items in a tune-up, as recommended by a leading spark plug manufacturer:

1. Test compression.
2. Test battery and voltage regulator.
3. Check, clean and tighten all electrical connections.
4. Test coil.
5. Test fuel pump pressure.
6. Examine generator belt, fan belt and hoses—replace where necessary.
7. Clean fuel filter and sediment bowl.
8. Examine all fuel connections for leakage—repair where necessary.
9. Install new points and condenser.
10. Clean, re-gap and test spark plugs—replace where necessary.
11. Adjust ignition timing.
12. Clean the air cleaner or replace the element.
13. Adjust the carburetor—remove and clean if necessary.
14. Road- or field-test vehicle. ✓

Tractors Need Efficient Cooling

WHEN you consider that the tractor radiator receives as much heat from the engine as an average household furnace can produce, you will realize why it is so important to have the tractor cooling system working efficiently.

Many cases of overheating are caused by dirt in the system, according to F. W. Bigsby of the Swift Current Experimental Farm, Sask. Dirt can come from rust, scale or the use of dirty water. This dirt fills up the tubes in the radiator and the water passages in the cylinder block. When these water passages are plugged, hot spots develop and cause dangerously high temperatures in the area.

Other causes of overheating are insects, straw and other dirt in the outside core, which prevent air movement through the core and the radiator cannot cool the water. Loose fan belts, stuck thermostats and faulty hoses also can slow down circulation and cause overheating.

These troubles develop slowly and usually the faulty cooling system is not noticed until the tractor is put on a heavy load, often at a busy time. Proper care and periodic checks of the cooling system save time and money. ✓

For Your Files

THE Agricultural Engineering Department at the University of Manitoba recommends to its students a basic list of files. It is not intended to include everything a farmer ought to have, but to give him some basis to work from. These are the files: 12" flat bastard, 12" second-cut mill, 12" half-round bastard, 12" round bastard, 6" smooth mill, 6" half-round second-cut, 6" slim-tapered triangular, 6" round, tungsten-point file. ✓

Hanson Sprayers help you farm better with chemicals!



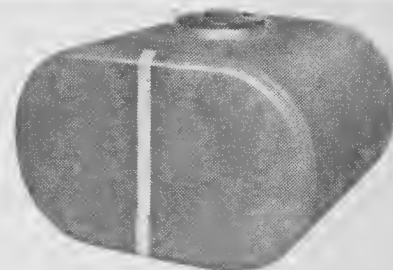
Hanson

Top-quality equipment for all your spraying needs!

You can depend on Hanson's precision-engineered spraying equipment for economical and effective applications of all types of chemicals.

Hanson Swath-o-matic Brodjet (above) is actually five farm sprayers in one—handles all your spraying jobs; automatically sprays with-the-wind with broad, effective swaths.

Hanson E-Z Spray (right) is the sprayer bargain of the season—features wear- and corrosion-resistant ceramic nozzles; 21-foot, 3-section boom; 8-way control; nylon-roller pump kit; steel trailer; hoses and fittings.



Hanson Fiberglass Tanks are unsurpassed for resistance to corrosive liquids and hard weathering—withstanding sharp blows without damage. Liquid level always visible. Sizes 50- to 500-gallons.

Farmers praise Hanson Spraying Equipment!

A. G. Chinnery, Coronation, Alberta writes, "Your Swath-o-matic is the best weed sprayer I have ever seen or used . . ."

Morcel Pierson, Porkmon, Saskatchewan says, "I am very satisfied with your sprayer . . . Your selector valve is the best I've ever seen."

CALGARY FARM MACHINERY LTD.
507 Second Street East
Calgary, Alberta

Distributed by:
INNES J. HAUG LTD.
P.D. Box 549
8th Ave. and Hamilton
Regina, Saskatchewan

PACIFIC TRACTOR & EQUIPMENT LTD.
505 Railway Street
Vancouver 4, British Columbia

See your authorized Hanson Dealer for full details!

ALBERTA
Barons—H. R. Clow
Barrhead—Robinson Brothers
Bentley—W. Petersen
Blackie—E. R. Egeland
Camrose—Alberta Machinery Co.
Cardston—Wolf & Sons
Carstairs—Himmelsreich Motors
Royal Motors
Champion—Champion Feed Service
Clareholm—Clareholm Co-op
Clareholm Garage
Cowley—Cowley Farm Equipment
Duchess—Dan's Texaco Garage
Edmonton—Neapolis Co-op
Eckville—Kasha Farm Equipment
Fairview—Dunvevyn Market
Gardens
Fenn—Fenn Equipment Exchange
Fleet—Leo B. Slem
Forestburg—Halberg & Dberg
Ft. Macleod—Gordon Sturdie Gas
Macleod Welding
Gem—Henry's Service
Genesee—Greenough Brothers
Gleichen—Gleichen Implements
Granum W. A. Henker
G. B. Cox
Hays Lake—Eric Lofgren
Husker—Bell & Scholting
Irvine—Stan's Sales & Service
Killam—Killam Farm Equipment
Magrath—Magrath Co-op
Garden City Motors
J. C. Robinson & Son
Mannville—Mannville Motors
Medicine Hat—Rudy Enns
R. E. Jacobson
Milo—Glen Dishaw
Morinville—R. Meunier
Morrin—E. D. Parry
Dnaway—John LaFleur
Dkotoks—Dkotoks Service
Penhold—Stewart Brothers
Picture Butte—W. H. Rae
Pincher Creek—
Stuckey's Farm Service
Pincher Creek Co-op
Pincher Farm Equipment
Johnny's Farm Supply
Ponoka—Autumn Brothers
Rainer—Dean Murray
Raymond—Dahl Motors
Fritz Farm Supply
Red Deer—Lawrence Equipment
R & M Farm Equipment
MacDonald Farm Equipment
Rockyford—W. C. Rieger
V. Petersen

Rolling Hills—
Central Sales & Service
Rocky Mtn. House—
Economy Tractor Sales
Standard—Reliable Motors
Stirling—
Marquardson Machine Co.
Stony Plain—John George
Taber—Taber Farm Equipment
Farm Equipment Centre
Tilley—Stolton's Service
Thorsby—Thorsby Farm Equipment
Tomahawk—Rosnau & Schoep
Trochu—J. E. Frere
Veteran—K. E. Thuline
Conway's Garage
Vimy—A. Fortier
Vulcan—M. R. Morrison Ltd.
J. T. Willard & Son
Threeway Service
Corner Service
Morrison Service
Wetaskiwin—
Wetaskiwin Implements
Westlock—Frank Merryweather

SASKATCHEWAN
Aneroid—Aneroid Modern Motors
Arcola—C. A. McIntosh
Assiniboia—

Happy Farmer Equipment
Bengough—Bengough Co-op
Bethune—The Motordrome
Big Beaver—Harold March
Briercrest—H. J. Westrum
Bromhead—Gordon Forrester
Ceylon—Lambrecht Motors
Climax—Delta Motors
Colgate—Lewis & Underwood
Cupar—Harry's Esso Service
Davidson—
Wilson's Machine & Welding
Esterhazy—Herperger Piercy Ltd.
Eston—Vic's Repair & Sales
Fillmore—
Fillmore Garage & Machine
Fleming—Hanson's Garage
Fort Qu'Appelle—W. Cockwill
Gainsborough—C. A. Smith
Glen Ewen—Alex Mitchell & Son
Goodwater—Alex Mitchell & Son
Greghard—Gerrard's Service
Grenfell—Schlamp's Garage
Hardy—Hardy Garage
Herbert—
Redekop Farm Equipment
Holdfast—Gelsinger Service

Kindersley—Halpenny Agencies
LaFleche—LaFleche Co-op
Lang—George Croft
Langbank—West's Garage
Leader—
Western Motors & Implements
Lipton—L. D. Cohen & Sons
Lumsden—Butson's Garage
Markinch—Wagner Bros.
Marquis—Sagal Bros.
Maryfield—Wm. Melenchuk
Meyronne—Meyronne Garage
Moose Jaw—Lamvert & Hornei
Dgema—Fritz Frank
Pennant—Undseth Bros.
Radville—E. Bourassa & Son
Redvers—Die Dangstad
Renown—Renown Motors
Rock Glen—Imperial Garage
Rocktown—Loken Motors
Sceptre—C. R. Cota
Success—Success Garage
Stoughton—J. J. Declaine
Swift Current—Shook's John
Deere Farm Equipment
Torquay—Gordon Forrester
Tribune—Chas. Preddy
Weyburn—Robinson Equipment
Whitewood—Whitewood Motors
Wolsley—Schlamp's Garage

BRITISH COLUMBIA
Armstrong—
Superior Motors & Machinery
Burns Lake—
Industrial Distributors, Ltd.
Creston—Valley Farm Equipment
Supply Ltd.
Dawson Creek—
Dawson Implement Ltd.
Duncan—
Cowichan Creamery Association
Fort St. John—
Mitchell Implements
Grand Forks—Colchester Supplier
Kamloops—Stan Steele Ltd.
Kelowna—Reliable Motors Ltd.
Penticton—
Parker Industrial Equipment
Prince George—Pacific Tractor & Equipment Ltd.
Salmon Arm—
Superior Motors & Machinery
Vancouver—Pacific Tractor & Equipment Ltd.
Victoria—F & F Tractor Equipment Ltd.

used everywhere

Hanson

under the sun!

Hanson Equipment Co.

Beloit, Wisconsin



Building Care

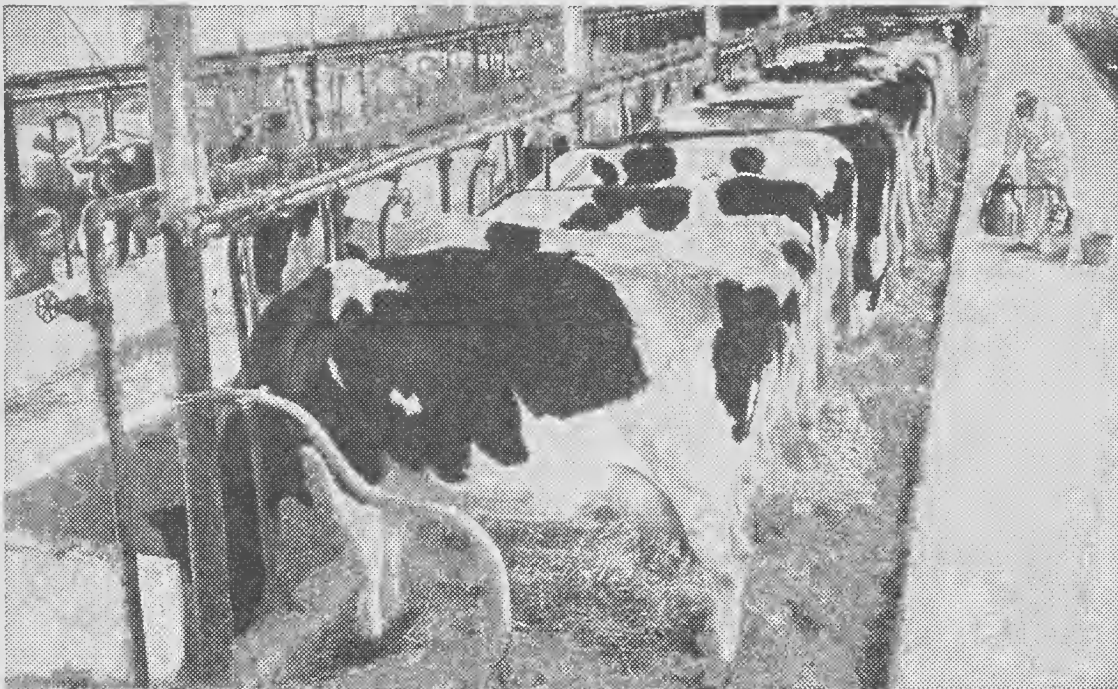
PAINT or weather-proof buildings to reduce depreciation and improve their appearance, and keep them in good repair. Use treated fence posts and treated wood, where rot is liable to occur. V

Ventilation For Open Housing

AN effective ventilator for an open-front beef shed is a 2" opening at the ridge. As wind blows from any direction over the roof, a suction is formed at the ridge and will draw air from inside the barn to provide the ventilation. A small amount of air is taken from each area of the barn, thus avoiding drafts caused when large openings are used. Air taken off the

top of the roof also induces an upward movement of air in the barn, which again reduces draftiness.

This system has been tested by the North Dakota Agricultural College. They found that snow and rain entering the opening have not been a problem. Rains do develop a wet streak down the center, but it dries rapidly. Snow enters only when it falls with a very light wind. Otherwise, snow tends to blow upward and out of the opening. V



MODERN DAIRY METHODS demand Concrete MADE with CANADA CEMENT

Whatever your method—stables with stalls, or loose housing with milking parlours—concrete, made with Canada Cement, gives you maximum savings and sanitation with minimum labour and costs. Concrete construction is easy to keep clean and is hygienic; it is fireproof, requires practically no maintenance, and it won't rot or decay.

For new buildings and for remodelling, use the best—use concrete made with Canada Cement.

SEND FOR THIS FREE BOOK

116 pages of information,
pictures, ideas,
suggestions.



CANADA CEMENT COMPANY, LIMITED

Canada Cement Building, Montreal, Que.

Please send free book "Concrete on the Farm".

Name _____

Address _____

City _____ Prov. _____

Concrete Horizontal Silo



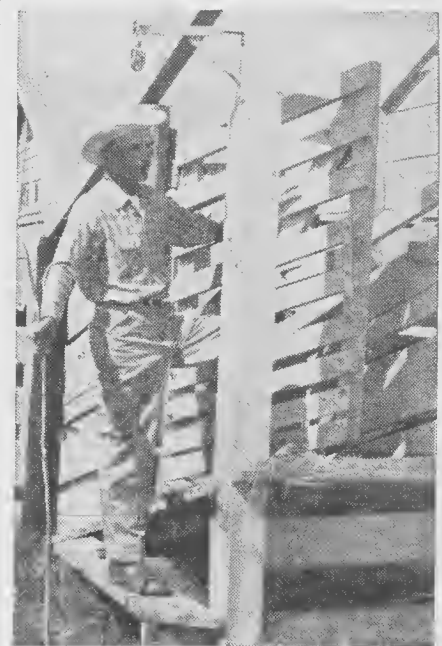
[Guide photo]

THIS concrete silo on Donald McKerrall's farm at Eberts, Ont., was built last fall using a "tilt-up" method of construction. Mr. McKerrall contracted the job out to a firm accustomed to working with concrete, and the same building method is said to be suitable for home construction too.

The posts and concrete floor were poured first. Then the slabs were poured in forms lying right on the floor. Once hardened, they were simply "tilted up" by the tractor into position to form the walls. All sections are steel or wire reinforced.

The silo is 64' long, 22' wide at the bottom, 29' at the top. The total cost of \$1,600 included bulldozing for the footings. Mr. McKerrall says its capacity equals that of a 14' by 40' upright silo. There was very little freezing on top and none along the walls last winter.—D.R.B. V

Loading Chute Cut-Off Gate



[Guide photo]

THIS loading chute in the feedlot of Jake Wambeke, High River, Alta., is made so that part of the sidewall can swing open like a gate. If any interruption occurs during loading, such as an unwanted animal getting in among those being shipped, the flow of cattle coming up the chute can be cut off momentarily until that one is weeded out. Jake has also built a step beside the chute for the operator to stand on.—C.V.F. V

Ask your local building materials suppliers for these quality products by Canada Cement!

CANADA NORMAL PORTLAND CEMENT FOR GENERAL USE IN MAKING CONCRETE.

CANADA KALI-CRETE RESISTS AGGRESSIVE ACTION OF ALKALI SOIL.

CANADA PLASTIC CEMENT FOR STUCCO AND MORTAR WITHOUT ADDING LIME.



When you think of all the work your tractor has to do this year—

**It's just plain good sense
to replace last year's spark plugs now!**

Spark plugs just don't wear out suddenly. They wear out gradually . . . *begin* to waste pulling power and gas *before* you notice poor performance. That's why you should change plugs regularly at the start of heavy farming seasons and after every 250 hours-in-use.

So, if you're still running on last year's spark plugs, put in a set of new Champions *now*. With new Champion spark plugs, you'll be *sure* of full pulling power and top gas economy for the busy months ahead.



MADE
IN CANADA
SINCE 1919

DEPENDABLE 5-RIB

CHAMPION

SPARK PLUGS

CHAMPION SPARK PLUG COMPANY
OF CANADA LIMITED, WINDSOR, ONTARIO

EVERY MAJOR NORTH AMERICAN TRACTOR MAKER INSTALLS CHAMPION SPARK PLUGS

LOW-COST Protection...

48

for
stored
grain



Butler Grain Bins are the safest, most convenient storage you can buy. Fewer seams, all sealed and double-bolted. Easier to load, inspect or test through quick-access manhole. Door fits like a vault, stays moisture-tight. Optional Butler Force-Aire drier keeps grain cool, prevents moisture migration.

for
bulk
feed



Butler Bulk-O-Matic® tanks save you work, actually pay for themselves! Make feed handling a fast, push-button operation . . . let you take advantage of bulk feed discounts, which can return your cost in the first few years. All-steel construction seals out weather, birds, rodents; won't absorb fats or moisture from feed. Sizes from 2.8 to 87 tons on special order.

for machinery
and livestock



Butler Utility Shelters go up in a hurry, with only a wrench and screwdriver. Can be mounted on skids or foundation; easily expandable. Heavy-gauge galvanized steel. Models 18 and 24 feet wide; any length in 10-foot 9-inch sections. Smaller 12-foot-wide model for hogs has one end open, the other closed with hinged door.

Made by Canadians with Canadian Material

BUTLER BUTLER MANUFACTURING COMPANY (CANADA), LTD.
FARM EQUIPMENT DIVISION

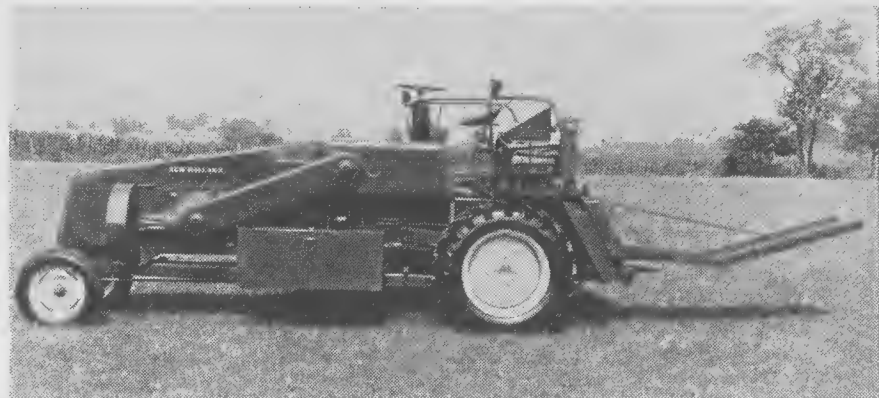
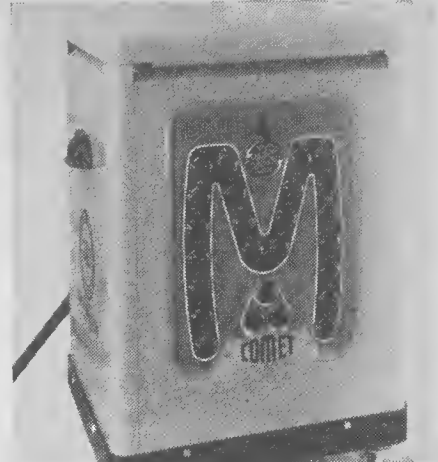
Dept. 2, P.O. Box 506, Burlington, Ontario

Manufacturers of Metal Buildings • Equipment for Farming, Dry Cleaning, Oil Production and Transportation, Outdoor Advertising • Contract Manufacturing



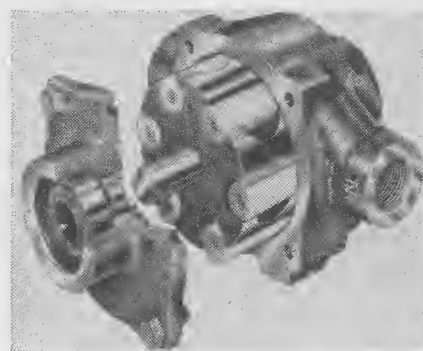
Powerline Welder

This 300-amp. welder has a striking voltage of 75 volts to simplify working with alloy rods. It is power-factor corrected to keep line draw to a minimum, and operates from a 10 h.p. farm transformer. (Smith-Roles Ltd.) (251) ✓



Self-Propelled Baler

Claimed to be the world's first self-propelled baler, this machine has a 51 h.p. engine and is operated from a "cruise control center" on the dashboard, controlling ground speed and baling speed. It has a capacity of up to 400 bales an hour. (New Holland Machine Company) (252) ✓



Sprayer Pump

Newly designed, sealed ball bearings, detachable mounting base, and tamper-proof seal relief porting are features of this sprayer pump. It can be used for insecticides or herbicides, and also soil fumigants and fertilizers with slight adaptation. Can be belt-driven or mounted on PTO. (John Brooks and Company) (253) ✓

For further information about any item mentioned in "What's New," write to WHAT'S NEW Department, The Country Guide, 1760 Ellice Ave., Winnipeg 12, Man., giving the key number shown at the end of each item, as—(17).

Continued from page 14

DOES IT PAY TO GROW SUGAR?

Factories farm in Alberta, says: "What we want in a new monogerm variety for this area is high sugar content and high yield. But like a teeter, when you get one up the other goes down. We'd also like a plant that is disease resistant."

After successful trials with monogerm in 1956 and 1957, there was the first general distribution of the seed in Ontario last year. Most growers had 5 or 10 pounds of it. Bev Easton, the Canada and Dominion Sugar Company's agricultural superintendent, estimates that sufficient seed should be available by 1960 for every grower to plant a good proportion of his crop with monogerm seed. He points out that monogerm eliminates half the labor normally required to block and thin the stand to a single plant in every 12" or 14" in the row.

A limited amount of the monogerm seed is available for the first time in Manitoba this year. Small allocations are being made to growers to test its performance on the farm and to learn how to handle the seed in the drills. John Hall, agricultural superintendent for the Manitoba Sugar Company, says there's no doubt that "monogerm seed is the coming thing, and that's why we want to learn how to handle it."

HARRY McKNIGHT, a grower at Roland, Man., describes beet growing as a "tough racket," but he was without the crop for one year and soon noticed a decrease in his income. Aside from that, he believes beets are a must with his Hereford cattle operation, because he feeds the beet tops on pasture during winter



"EXPORT"

PLAIN OR FILTER TIP
CIGARETTES

100-year-old Gypsy Bait Oil MAKES FISH BITE

or no cost

Mysterious aroma of Gypsy Fish Bait Oil makes fish go wild through thousands of small organs, covering their bodies. One potent drop on artificial or live bait attracts fish in fresh or salt water whether you still fish with pole, cast, spin or troll. They streak toward your bait, and the biggest one usually gets there first. It works EVERY DAY—AT ANY TIME. Gypsy Fish Bait Oil must fill your creel with biggest fish—or your money back. Only \$2.98 ea., 2 for \$4.98. Order promptly and receive FREE handy, water-resistant pouch for matches, lunch, tobacco, etc. Order from:



Fisherman's Products Co.,
of Canada

Dept. 807-E, 557 Pape Ave. Toronto 6, Canada



Do FALSE TEETH Rock, Slide or Slip?

FASTEETH, an improved powder to be sprinkled on upper or lower plates, holds false teeth more firmly in place. Do not slide, slip or rock. No gummy, gooey, pasty taste or feeling. FASTEETH is alkaline (non-acid). Does not sour. Checks "plate odor" (denture breath). Get FASTEETH at any drug counter.

FREE—Amazing Book on RHEUMATISM, ARTHRITIS

If you suffer aches, pains and discomforts of Rheumatism, as manifested in ARTHRITIS, NEURITIS, SCIATICA or LUMBAGO, send today for this FREE Book. It reveals important facts about why drugs and medicine give only temporary relief without removing causes of your trouble. Explains a proven, specialized system of treatment that may save you years of distress. No obligation. Write for this FREE Book today!

BALL CLINIC, Dept. 539, Excelsior Springs, Mo.

and finds cattle do well on this feed.

McKnight prepares for beets by sowing a cover crop on summerfallow early in spring, runs cattle on it for 6 weeks, then spreads barnyard manure, plows the crop in and leaves it fallow until the beets go in the following year. He harvests an average of 70 acres of beets, with yields of 10 to 11 tons per acre.

In Ontario, some growers have tried widening their rows from the recommended 24" or 28" to as much as 36". The idea has been to allow beets to grow larger and provide the same yield, while reducing labor. The danger here, as Bev Easton says, is that when beets grow larger their sugar content tends to reduce. This could hit growers hard because they are paid on the basis of sugar content.

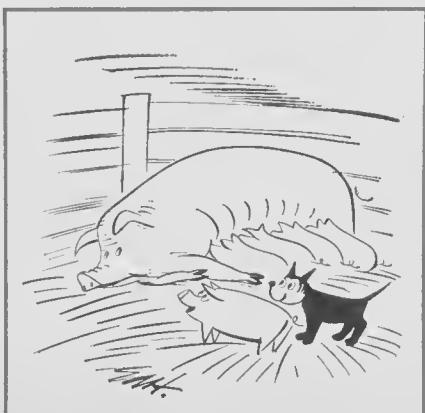
For Alberta growers, Canadian Sugar Factories suggest an irrigated pasture of alfalfa, sweet clover and recommended grass mixtures in rotation with beets. This means grazing for cattle, better weed control and the addition of organic matter and manure to the soil. Alberta growers are also encouraged to use beet pulp, a by-product from sugar manufacturing, in their feedlots. The Manitoba beet pulp is shipped mostly to Eastern Canada as feed.

The tendency now is toward lighter rates of seeding, processed seed containing fewer germs in the seed mass, and precision planting. This results in more uniform spacing of single seeds at about 12 per foot, compared to the old method of laying a solid line of seed in rows, amounting to 17 or 18 lb. per acre. This is helping to reduce the thinning, cultivating and harvesting costs, but the real breakthrough in efficiency is coming with the increase in mechanization.

As an example of the steady increase in mechanization, Ontario reports that 90 per cent of the 1958 sugar beet crop went through precision drills. In Manitoba, more than 95 per cent of the harvesting has been mechanized, but the move toward mechanical thinners is somewhat slower. As John Hall puts it: "These thinners are still quite new and it takes a while before growers feel they can use them. But it's good to know we have them to make good the dwindling labor supply."

Labor is already hard to find in several beet areas, and a job such as thinning depends so much on correct timing that it is dangerous to leave it to chance. Immigrant labor has been traditional in the beet fields, but a good many growers can't afford

(Please turn to page 50)



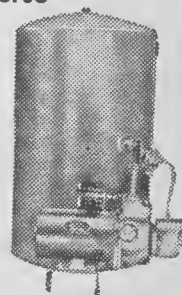
"Oh Ma!—Would it be OK if my friend Butch stayed for lunch?"

living is easier...

WHEN WATER IS YOUR SERVANT

ALL THE WATER you need — automatically with a Fairbanks-Morse Water System

The F-M line of water systems is the broadest in Canada. There is a complete range of both piston and ejector type units, for shallow or deep well use, to give any home or farm all the water they need.



HOT WATER always available — automatically with a Fairbanks-Morse glass lined Water Heater

No more waiting for hot water... there are gallons of it ready for your use... always clean because the special glass lining in F-M units prevents rust and corrosion. Available in electric or gas models with F-M ten year protection plan.



SOFT WATER all the time — with a Fairbanks-Morse Water Softener

Soft water makes washing easier, aids health and beauty and improves food flavour. You save on soap and plumbing bills, too, when you instal on F-M automatic or semi-automatic unit.



installation is easier

operation more economical... with a

FAIRBANKS-MORSE

WATER SYSTEM • WATER HEATER • WATER SOFTENER

You can have all the wonderful advantages provided by these Fairbanks-Morse units for easier living at a surprisingly low cost. F-M experience in building mechanical equipment assures many, many years of trouble-free operation. Service and parts are always available from branches in principal Canadian cities.

See your F-M dealer or mail this coupon for full information on these and other F-M quality products.

- ☐ WATER SYSTEMS
- ☐ WATER HEATERS
- ☐ WATER SOFTENERS
- ☐ LIGHT PLANTS
- ☐ SPACE HEATERS
- ☐ SUMP PUMPS
- ☐ LAWN MOWERS

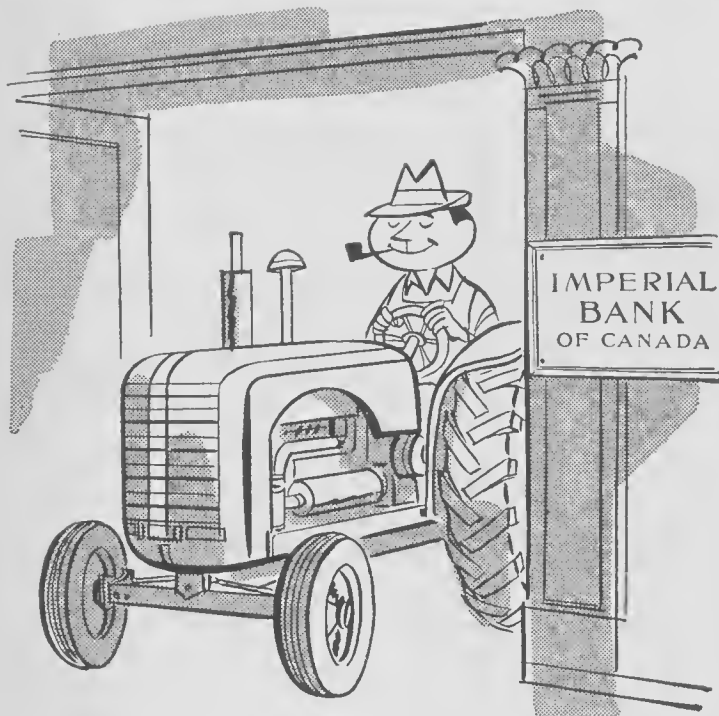
The Canadian Fairbanks-Morse Co. Limited
980 ST. ANTOINE ST., MONTREAL, QUE.

Please send me information on the items I have checked.

NAME.....

ADDRESS.....

S9-2

GOODLong famous for
knotless quality...**BETTER**Canada's first 10,000 ft.
'extra length' twine**BEST**Now with new "FORMULA-X"
PROTECTION against rot,
rodents, insects**NEW****BRANTFORD****Maple Leaf®**
BALER TWINE**FREE****WEATHER FORECAST
SERVICE**Write address below for
FREE "Weather Consul-
tants" monthly forecasts
detailing wet and dry
spells, cold and warm
periods, etc.Here's new 'value-insurance' in a twine that
has long been famous for its trouble-free,
time-saving service in the field. Now Brantford
makes it the best ever with added anti-vermin
storage protection too... Another reason
why there's no substitute for Brantford's free-
running quality!**THE BRANTFORD CORDAGE CO. LTD.**
BRANTFORD - ONTARIO**New tractors at IMPERIAL BANK**A bank selling tractors? Not exactly, but Imperial
Bank can help you purchase a new, efficient tractor.
You can get one through a low interest rate Farm
Improvement Loan, as so many farmers do. Talk to
your local Imperial Bank Manager.**IMPERIAL***the BANK that service built*to maintain a family of immigrants
just for 6 weeks work in a year.
Consequently, they are forced to pick
up Indian labor off the roads when
thinning time comes along.**T**he labor problem has not yet
touched the Mennonite communi-
ties of southern Manitoba. Men like
Henry Kuhl in the Winkler district
find that families on small farms are
eager to find work in the beet fields.
In other cases, the smaller beet grow-
ers get together for both hand and
mechanical work.Kuhl is typical of many farmers in
that region. He has a contract for 75
acres of beets, which is considered a
good size for a man to handle with
the basic equipment. This includes
the drill, thinner and harvester, plus
a rotary cultivator mounted under the
tractor. This special cultivator can be
used also on vegetable crops, and
some growers use the drill and the
thinner for sunflowers, and the drill
for soybeans and vegetables. This
ability to switch the equipment to
other purposes is a factor in keeping
down costs in beet production.Kuhl's rotation consists of two years
in other crops, one of summerfallow,
and then the beets. He wants to try
canning peas and navy beans to see
how beets grow after them. He could
get a pea crop off early and leave
some moisture and cleaner land for
the beet year. Ontario growers find
beets, a deep-rooted crop, are par-
ticularly well adapted to rotations
with shallow-rooted ones like grain or
corn. Some use tobacco or tomatoes
in the beet rotation.The growth of mechanization is not
without its problems on some of the
smaller farms of southern Alberta,
especially where beets are a main
crop. About 63 per cent of the Al-
berta sugar beet plantings are less
than 25 acres, while 50 acres is con-
sidered a minimum for proper mech-
anization. The answer for the smaller
growers appears to lie in custom work
and joint ownership of machines.The Ontario picture tells a slightly
different story. The sweat and labor,
and consequent higher costs of pro-
duction, have been a deterrent to beet
growing on a sufficient scale to meet
the needs of the sugar factories. But
now, in Bev Easton's opinion, the new
machines are encouraging higher pro-
duction. His firm is making loans to
growers for purchasing equipment,
and there has been a heartening in-
crease in acreage of 60 per cent last
year. The swing has gained such mo-
mentum, that Easton predicts that in
the near future the only hand opera-
tion for most of the crop will be a
quick trip over the fields with a
long-handled hoe. By then, much of
the crop could be handled by farm
families independent of outside help.
Once freed of their reliance on hired
help, the place of sugar beets could
be assured in Ontario farm programs.**T**he mechanical harvester, which
eliminates the back-breaking
work of pulling and topping beets,
and tossing them into the wagon,
leads the parade toward mechaniza-
tion. Custom operators, who contract
to harvest and deliver the crop right
to the factories, are playing a part
in this development too. Clair Arnold
had a custom operator take off his
crop at Northwood, Ont., and figuredit gave him an additional 2 tons per
acre compared with hand work. He
was able to boost his acreage from
18½ in 1957 to 32 acres last year,
and also to buy a harvester and plan
further expansion.L. C. Craven, a grower at Eberts,
Ont., looks to mechanical thinners to
save him work in future years. But
first a grower has to acquire skill and
precision in handling this machine.
The common type of thinner has re-
volving wheels studded with blades,
which slice off a proportion of the
seedlings much as a Roman chariot
used to cut up victims when they ven-
tured too close to the knives on its
wheels.John Fehr has been in beets since
1940 and says soybeans go well after
the sugar crop on his heavy land at
Altona, Man. Beets reduce weeds for
the soybeans, which in turn soften up
the land after beets. Oats and barley
come next in the rotation. A few miles
farther west at Cnadenthal, Dave
Bueckert and his father each have 75
acres of beets, and also grow regis-
tered wheat, oats and flax. Dave
reckons he would not be producing
registered oats unless the beets were
there to eliminate the wild oats. The
beets have been going into summer-
fallow, but he aims to get away from
this and replace summerfallow with
beans or potatoes.**T**he cash crop farmer and the man
using irrigation have a head start
when it comes to growing a crop like
sugar beets. They are already accus-
tomed to this type of specialized pro-
duction, and tend to have the right
crops to make up a satisfactory rota-
tion. It is true that some have turned
to beets as a substitute for grain acre-
age, and a proportion of them would
not stay with the crop if there was a
simpler, marketable alternative. It is
also true that some of the smaller
farms in Alberta may find the cost too
high to stay in the beet business, un-
less they can find ways to spread the
expense through sharing. But, in gen-
eral, the indications are that beet
acreage will continue to increase.The two Ontario sugar factories are
still far from their full capacity, and
neither the three plants in Alberta
nor the one in Manitoba is showing
signs of cutting back production—in
fact, Manitoba acreage is going up
this year. Taking into consideration,
too, the fact that only 20 per cent of
Canada's total requirements is sup-
plied by sugar beets, plus the current
support price formula and the giant
strides being made in mechanization
and plant breeding, it is a fair guess
that Canadian-grown sugar is here to
stay. What's more, this high-cost crop
is becoming more economical for the
man who is prepared to get the best
out of his beets. V

DEPENDABLE WORK HORSE THAT PAYS FOR ITS KEEP



Beneath the clean, modern styling of Mercury Styleside Pickups lies a real work horse. That's because Mercury builds in reliability and stamina—in abundance—and matches it with 23% more load-space than standard pickups. But Mercury's story doesn't end here. New improvements throughout help lower farming costs. Regular gas is recommended for Canada's most economical Six—in fact U.S. tests proved an average of 25.2% more miles per gallon. Two-stage springs provide a smoother ride, light or loaded. New cabs are roomy and comfortable—with new seat fabrics that are twice as durable, cooler riding in hot weather. Suspended brake and clutch pedals provide a tighter sealed cab floor. And tests also prove Mercury's rubber cushioned suspension system is the smoothest riding of all—even over rough fields. See payoff-proved performance in action at your Mercury truck dealer. Ask, too, about Mercury's new low-priced 4-wheel drive $\frac{1}{2}$ - or $\frac{3}{4}$ -ton models with power take-off.

Certain features illustrated or mentioned are standard on some models, optional at extra cost on others.

**MIGHTY
MERCURY
TRUCKS**

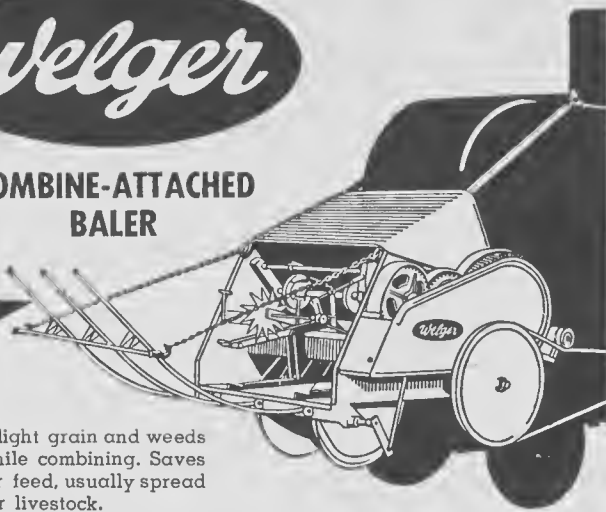
BALE YOUR STRAW—

WITH THE

Welger

COMBINE-ATTACHED
BALER

Look at
THESE
BIG
FEATURES



- Bales straw, chaff, light grain and weeds in one operation while combining. Saves this valuable winter feed, usually spread in the field, for your livestock.
- Makes square bales—adjustable from 15 to 30 lbs. No reduction in capacity of combine.
- 50% twine saving . . . uses binder twine. Fool-proof Welger knoter.
- Ensures fresh, clean straw—not muddy or bleached from lying on the ground.
- Soon pays for itself through savings in fuel, time, labor and increased feed value of straw . . . EVEN IF YOU ALREADY OWN A HAY BALER.

Welger balers fit: Massey Harris 26, 27, 80, 80SP, 82, 90, 90SP, 92; International 127; John Deere 55; Case 120; Cockshutt Co-op 112, 132, 427, 428, 137; Gleaner.

Hundreds of these units are now giving completely satisfactory service to farmer owners in Western Canada. Write your distributor for full details.

FALCON EQUIPMENT CO. LTD.
299 Danforth Rd., Toronto 13, Ont.
2875 St. Joseph St., Lachine, P.Q.

GRAIN BELT FARM EQUIPMENT LTD.
Box 1184, Regina, Sask.

ALBERTA ENGINEERING LTD.
Box 789, Wetaskiwin, Alta.

Continued from page 13

THE AMERICAN BEEF BREEDS



This is a fine example of a Brahman bull that has been progeny tested and is used now for crossbreeding purposes by an artificial insemination unit.

Brahman) is one of the most promising of the Brahman crosses. It's usually creamy-white in color, big-boned and well-fleshed. In appearance, it's more Charolais than anything else. At the Turner and Thomas ranch, Weslaco, Tex., where the animal was developed, bulls often weigh over 1,000 pounds at 11 months of age and calves from 535 to 750 pounds at weaning. Several Canadian stockmen, such as the Malmberg Brothers of Spring Coulee, Alta., have imported Charbray bulls to cross with Hereford, Shorthorn and Angus cows, and are well pleased with the results.

Another promising Brahman crossbred is the Brangus, having a blood percentage of $\frac{3}{8}$ Brahman and $\frac{5}{8}$ Angus. This cross was developed by Frank Buttram and his foreman, Raymond Pope, at Clear Creek Ranch, Welch, Okla. Although the Brangus owes its being to the fact that Buttram once lost 230 fine British-bred cattle to the hot, humid climate of the Louisiana lowlands, and wanted a new southern breed, Brangus herds can now be found all over the United States, and in many parts of Central and South America and Canada. The Brangus seems to have a good deal of the hardiness of its sturdy Angus forebears. One herd is reported to be thriving north of Fort St. John in northeastern B.C., and another at the head of the Great Lakes, in Ontario.

Both the Charbray and the Brangus have their own "breed" associations in the United States. Canadian directors of the International Brangus Breeders Association Inc. are Bruce Dawson, Atlee, Alta., and Robert Arlt, Claresholm, Alta. Both claim the cross gives about 100 pounds more marketable beef per animal than the straight breed. Dawson, who is known as "Mr. Brangus" in Canada, started with two half-bred Brahman bulls in 1947 and now has a Brangus breeding herd of 180 cows.

Association members have their own publication, and already consider the Brangus a new breed of cattle. As a promotional move, Clear Creek Ranches have offered to send an exhibition herd of 12 specially fitted animals to the Calgary Livestock Show and Stampede, and last year,

Charolais cattle were on display at both the Lethbridge Exhibition and the Toronto Royal.

THE Brahman-Hereford cross, often called the "Braford," was started in 1940 by the McGill Brothers, near Falfurrias, Tex. First cross calves averaged more than 150 pounds heavier than the Herefords, and resistance to some diseases was higher. Although still listed in the magazine "American Breeds" as a promising cross, this animal shows a good deal of color variation which makes it difficult to fix any distinct characteristics. Most dominant color is a brindle body with the traditional Hereford white face. However, "Braford" calves born at Manyberries, and shipped to Central Experimental Farm, Ottawa, for raising and finishing, weren't discriminated against by Eastern packers when they came to be sold, which means that even packers are allowing their prejudices to slip a little.

The first Brahman cross to become "fixed" as a distinctly new breed is the Santa Gertrudis, developed at the King Ranch, Kingsville, Tex., for their particular conditions. After experimenting with Brahman bulls on Shorthorn and Hereford cows since 1910, it was decided that a Brahman-Shorthorn cross was most likely to give the type of animal needed. Work began in earnest in 1920, and 3 years later, the outstanding bull "Monkey" was discovered, which be-



"A real genius! He figured out how we can run this highway through four more barns, three farmhouses, and a milking parlor!"

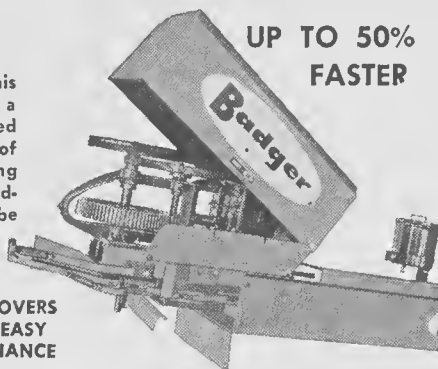
MODERNIZE YOUR FARM WITH THE **Badger** BARN CLEANER

ELIMINATE THE DRUDGERY OF MANUAL CLEANING

If you are rebuilding or remodeling, why not eliminate the messy, time consuming chore of manual cleaning. A Badger will clean your barn in minutes, help eliminate your hired man problem and give you more time for productive farming. Let a Badger specialist show you how you can go modern . . . with a Badger Barn Cleaner.

THE MODEL 400

Design, quality and workmanship put this transmission ahead of all others. It is a straight spur gear transmission designed for maximum efficiency. The ease of maintenance and lubrication are among the features of this unit. Years of dependable service have proven this to be America's No. 1 Barn cleaner.



UP TO 50%
FASTER

TIP BACK COVERS
ALLOW EASY
MAINTENANCE

THE MODEL 200

The efficiency and durability of this model surpasses any other transmission in its class. It is designed and engineered for the average farm, and is economically priced. It will give years of trouble free service. Discover the advantages of push-button cleaning.

You can modernize your feeding set-up with a Badger Silo Unloader and Bunk Feeder. Increase your herd, increase your profits, with no increase in labor. Badger offers 3 types of bunk feeders, the Auger Feeder, the Round the Silo Feeder and the new Tube Feeder. Investigate today.

Distributed by
DE LAVAL
LA COMPAGNIE DE LAVAL LIMITEE

Please send the following literature
Barn Cleaners ☐ Silo Unloaders ☐
Bunk Feeders ☐ Student ☐

Name _____

Address _____

City _____

Prov. _____

BADGER NORTHLAND INC.
BOX 31, DEPT. CG KAUKAUNA, WIS.


DANCORD

The famous Danish Twine

LONGEST: 10,000 FT.;
tensile strength 290 Lbs.

STRONGEST: 325 LBS.
tensile strength; 9,000 FT.
guaranteed knotless
- and all finest

EAST AFRICAN SISAL



THERE IS A DANCORD DEALER NEAR YOU
who can also serve you with
DANCORD Binder Twine
and **750 ft. Baler Twine**

DANCORD

136 NORMANDIE, MONTREAL 23, P.Q.

"WESTFALIA"

ALL ELECTRIC
and HAND
Cream
Separators
and
Milkers



- All rust-proof
- Closest skimmers
- Outstanding beauty and performance
- Built to last a lifetime

Truly the World's Best—and your Best Buy. Sizes and models to fit all needs.



You milk better . . . safer with this small compact surcingle milker. Automatic cut-off allows you to milk one teat at a time.

SEE YOUR DEALER OR WRITE

C. A. DeFEHR & SONS LTD.
78 Princess St. 10970—84th St.
Winnipeg 2, Man. Edmonton, Alta.

FREE 41-page Catalogue on
Livestock and Poultry Specialties



- IDENTIFICATIONS
- DAIRY SUPPLIES
- VETERINARY INSTRUMENTS
- GROOMING SUPPLIES
- POULTRY EQUIPMENT

KETCHUM MFG. SALES LTD.
Dept. CG, 396 Berkley Ave., Ottawa 3, Ont.

came the founder of the Santa Gertrudis breed. Using the best red bulls on the best red heifers, the herd was inbred, line-bred and rigorously selected. The Santa Gertrudis was officially recognized as a pure breed in 1940, 30 years after the first experiments were initiated by Robert Kleburg Sr., father of the ranch's present owner - manager. Santa Gertrudis cattle are now found in 24 states and 18 foreign countries. They are especially suited to hot, dry climates, or humid sub-tropical countries, and might well become the dominant beef breed in such areas.

THE Santa Gertrudis is coming rapidly into the picture in Canada these days. J. Grant Glasco of Woodbridge, Ont., says: "We have been pioneering the Santa Gertrudis in Canada and now have been joined by at least three other serious breeders producing breeding stock for sale. Interest has grown steadily, and in spite of having about 60 brood cows in production, we are unable to satisfy the demand.

"So far," according to Mr. Glasco, "the Santa Gertrudis have shown themselves as hardy and cold resistant as the British breeds. Were I ranching in the foothills of Alberta, I would not hesitate to replace a good herd of British bred animals with Santa Gertrudis, based on purely commercial considerations. When used for crossbreeding, however, Santa Gertrudis bulls have a special attraction for Canada. From our own experience, admittedly under good pasture and feed conditions, we can market a good proportion of the crossbred calves from our herd of British bred cows at the time of weaning, with weights of 700 lb. or better."

Miss Margaret Norrie, farming at North River, N.S., bought a bull last year to grade up her Angus and Shorthorns. Last year also, well-known Quarter Horse breeder George Cheatham of Calgary brought in 10 Santa Gertrudis cows and a young bull for his ranch at Midnapore, Alta. Manager Bun Burles reports that eight calves born last August and September averaged 400 to 500 pounds at 5 and 6 months of age, and "haired up" well to meet the Canadian winter.

No discussion of the American breeds would be complete without mentioning Tom Lasater's controversial Beefmaster, dealt with in detail in the February 1958 issue of The Country Guide. The Beefmaster was developed from a three-way cross of Brahman, Shorthorn and Hereford cattle with the idea of producing a quick-maturing calf at 8 months of age—under range conditions and with no supplemental feed. Beefmasters are big, extremely hardy and thrifty. In one of the worst seasons in Texas history they were kept alive by feeding them ground cactus. In breeding the Beefmaster, no attempt has been made to fix any particular visible character, and the resulting variation in type will probably limit their acceptance in Canada.

THE American breed which has made the most favorable impression on stockmen here is the Charolais. Since the organization of the Canadian Charolais Association in Calgary last January, interest in this



Automatic OFFERS THE NEWEST and BEST in LIVESTOCK OILERS

Automatic Equipment Mfg. Company, creators of time and labor-saving equipment for the farmer-stockman, were the first to introduce Cattle Oiler machines over thirty years ago. Both Sandhills and Stampede Oilers are fully automatic and equipped with positive oil control. Insecticide is released only as cattle rub and scratch. Our experience and know-how is your full guarantee.

Here's the Oiler designed for your specific purpose --
AT A PRICE ANY STOCKMAN CAN AFFORD.

"Sandhills" ALL-STEEL OILER

Recommended for feeder cattle, long-haired cattle, northern cattle, and for dry lot use. Steel cable-washer rubbing element built to last a lifetime. Cattle entering oiler lift rubbing element which actuates pump and a measured amount of insecticide flows down an cable from supply tank. Washers on the cable act as a seal to hold oil; animals rubbing action separates washers and insecticide is released — brushed and combed deep into hair and hide. Loose dead hair and dirt are removed, hair and hide is conditioned to give that "Shaw-Ring" finish.

\$39.50



"Sandhills" ROPE-WICK

\$29.50 SINGLE UNIT **\$49.50 DOUBLE UNIT**



Recommended for beef or dairy cattle, . . . thin-skinned—short-haired animals, and for use in laafer-pens. Cattle entering Oiler lift rubbing element which actuates pump and a measured amount of insecticide flows down onto rope. Rope soaks up all the oil. Oil is released as cattle rub, applying insecticide to animals hair and hide. Giant size marine rope rubbing element is rot and wear resistant. Oiler NOW available with heavy-duty steel guard pictured at right. Steel guard encasement adds "scratchability" priced extra at \$3.70 for single unit — \$7.25 double.

GIANT ROPE
STEEL GUARD

Let Cattle Treat Themselves!

3 GREAT NEW OILERS AT NEW LOW PRICES

Stampede OILER

Perfect for hornfly control. **\$54.50**



Best for open range and cattle on pasture. Treats 2 or 3 cattle at a time. 8-gallon cylinder is freely suspended by chain, and equipped with adjustable oil control. As cattle enter Oiler, they turn cylinder which permits regulated amount of insecticide to saturate canvas apron. Stampede Oiler wipes film of oil base insecticide onto animals' hair . . . Cattle can't pressure against it, can't tear it up.

Always On Guard Protecting Livestock!

Recommended Insecticide Concentrate **HESSKILL METHOLEX**

For best results at lower cost, mix Hesskill Metholex with #2 fuel oil or petroleum distillate for use in cattle oilers. One gallon will take care of 50 to 100 cattle for several months . . . because it takes so little. Also mixes with water as a spray application. Safe for both dairy and beef cattle.

Price per gallon **\$10.70** postpaid

WRITE FOR NAME OF NEAREST DEALER

AUTOMATIC EQUIPMENT MFG. CO., LTD.

160 9th AVENUE N.W., SWIFT CURRENT, SASK. • PENDER, NEB., U.S.A.

DEALERS AND FARM AGENTS WANTED

Hoping for something or saving for it?

Ask about the Royal's "Two-Account Plan".
Makes saving easier.

THE ROYAL BANK OF CANADA

RB-58-2

Chevy's got it!

THE STATION WAGON FOR YOU!

Pick yours from 5 great models



ROOM TO PACK MORE IN...



AND TO STRETCH OUT

Pick the perfect partner for your family's leisure time from Chevrolet's fulfilled five. Rugged chore-horse... sophisticated evening companion... a Chevrolet station wagon doubles as both. Whether you want to haul half-ton loads, or take nine passengers in spacious comfort, Chevrolet's got just the station wagon for you. See your Chevrolet dealer today.



GO CHEVROLET-
FOR EXTRA VALUE!

D

LOW COST 2" TRACTOR PUMP

**Hypro roller pump
delivers high
volume**

80
GALLONS
PER MIN.

for
Tank Filling
Water Hauling
Sprinkler Irrigation
Fertilizer Transfer

JOHN BROOKS & CO. LTD.
6525 Somerled Ave., Montreal

ONLY
\$69.50
F.O.B. factory

NO GEARS NO VALVES

Self priming, positive displacement roller-type pump operates at tractor PTO speeds. Available also in base mounting type with solid shaft for pulley drive.

NAME _____

ADDRESS _____

breed has grown apace. But there are two major limiting factors (not to mention political factors) which are hindering the development of the Charolais as a distinct breed in this country. The chief one is that, while bulls are available, good cows and heifers are as scarce as hen's teeth. This, and the fact that Charolais semen is available from the A.I. Unit at Waterloo, Ont., has led to widespread crossbreeding, and a confusion of blood percentages that would daunt anyone but a mathematics professor. You hear of $\frac{3}{4}$ bloods, $\frac{15}{16}$ bloods and any number of fractions, and these will take a little breeding up before the required $\frac{31}{32}$ is reached for "purebred" Charolais certification. As far as commercial beef is concerned, however, crossing Charolais bulls with Hereford or Shorthorn cows is producing big, thrifty animals which are bringing increased profits to their owners.

Another factor that might hinder breed establishment, is the presence of Charbray bulls in some herds. The Charbray resembles the Charolais in color, size and appearance, and a lot of stockmen aren't going to be able to tell the offspring of one from those of the other. If a distinct breed is desired, Canadian Charbray owners will have to either breed up their stock with pure Charolais bulls, or strike out with a breed association of their own as their American counterparts have done. In fact, the future of the Charolais in Canada will depend a good deal on the quality and integrity of its breeders.

According to last reports, the only Charolais herd of any size in Eastern Canada is that of Murray Little, Markham, Ont. Out west, Ray Branum, Craigmyle, Alta., president of the newly-formed Canadian Charolais Association, has about 20 cows, plus about a dozen bulls of various ages. Ray sold nine bulls last year, and gets from one to three letters every day asking what breeding stock he has available. Farther south, Noble Farms at Nobleford, Alta., have developed a sizeable Charolais herd and will have received another carload of the animals by the time this is printed. West of them, Fletcher Bennett of Pincher Creek has about 15 three-quarter blood heifers, and is using both bulls and A.I. to build up his Charolais herd as quickly as possible.

Purebred men of established breeds who expect these new types to keel over at the first sign of frost are doomed to disappointment. With the possible exception of the pure Brahman, most of the new breeds appear to winter very well here. Even the Santa Gertrudis, developed especially for hot climates, will adapt to sub-zero conditions. On the other hand,

some of these breeds may react to the cold by eating an extra large amount of feed, in which case they would be uneconomical for the Canadian stockmen. But these are some of the things cattlemen would know about now, if those reports of 10 years ago hadn't been pigeonholed. V

Continued from page 17

TWO WAYS TO FINANCE HOGS

placed on pig starter. A week later, they are castrated and given another inoculation. From 70 to 120 lb. weight, they are fed pig grower. Then, they are carried through to market weight on a finishing ration.

When the pigs approach market weight, they are sealed weekly. Those that go 190 pounds are shipped. Pens are disinfected and limed after each batch, before new pigs are placed into them.

ALL in all, it's a simple, efficient system for handling hogs. But Dymont emphasizes there is no place in it for carelessness. Despite the small amount of work, hired man Cliff Dougherty visits the pens every hour or so during the day. If trouble crops up, he has to notice it quickly and remedy it fast if damaging losses are to be prevented.

Dymont is financing his hog enterprise with a method that is becoming common in the province. He turned to feed companies for credit to provide both the feed and the pigs. He pays for each when the pigs go to market.

But he points out, "I'm my own boss. I'm not integrated. If there's profit, I get it. If there's a loss, I take it too. All I get from the feed company is credit. There are no more strings attached than if I borrowed the money from the bank."

Before Dymont went into his hog program, he used to raise about 150 hogs a year. With his new enterprise he says he wasn't long finding out just how little he really knew about hogs. He admits he has a few kinks to iron out yet.

- He likes the wire partitions he uses between pens, but he is boarding up the alley walls to cut down cross drafts.

- Mortality has been too high, but he has located a veterinarian who is good with pigs and who is helping him reduce disease losses.

- The walls of his building aren't insulated yet, but he will remedy that before next winter.

- Grades haven't been good enough on his pigs, but he blames that on the breeding of the pigs he buys.

What about the future? That is uncertain too. He believes that the \$25 government support price has done the hog business more harm than good, because it has prevented the normal shake-out in the industry that would go with low prices. Even so, he sees no reason for pessimism. At present prices, he can stay with it. When prices climb again, he believes he will cash in on his volume operation. V



RANGER OF SUN DANCE

Conclusion of a serial in four parts

by JOHN PATRICK GILLESE

JODER, a veteran forest ranger, is out to get Crazyfoot, an old grizzly that has been a menace to elk in the Sun Dance Hills for many years. Allied with Joder is Ken Currie, a youngster from a local ranch with a keen interest in the forest ranger's work. They have another common interest in Hammerhorn, a bull elk Joder adopts as an orphaned calf, and later returns it to the herd.

Hammerhorn learns how to drive off wolves and to duel with other bulls, but as he grows up he still remembers Joder. The ranger now has an office in town and Ken Currie is at college, but both will see Hammerhorn become king of the herd.

Part IV

WITH the last weeks of winter, the gaunt bulls lost almost the will to survive. The bigger they were, the more fodder they needed; the further they had to range to find it. Half-a-dozen different wolf-packs hunted down the scattered leaders. Using an age-old technique, they closed in on the starving strays, feinting and harassing until the bulls lay down in terror and waited stoically for death.

Hammerhorn was browsing on bitter birch branches the morning a pack of five found his fresh prints. Almost before he was aware of their nearness, they broke to circle him.

Fear, born of bodily weakness, made the bull bawl heavily. He turned up through the drifts, his one instinct to reach the remembered safety of the Old One. Rump to rump, they could handle the attackers still.

The wolves, unhurried, followed.

Above the Pass, the drifts were four feet deep. Hammerhorn floundered; and the first of the pack—whose pads scarcely marked the packed snow—leaped for his jugular vein. The bull reared in the drift as another took a mouthful of living flesh from his haunches.

They studied him confidently, circling again. He had not the energy now to hold them off and still make the upper ranges. Dully, the bull lowered his head.

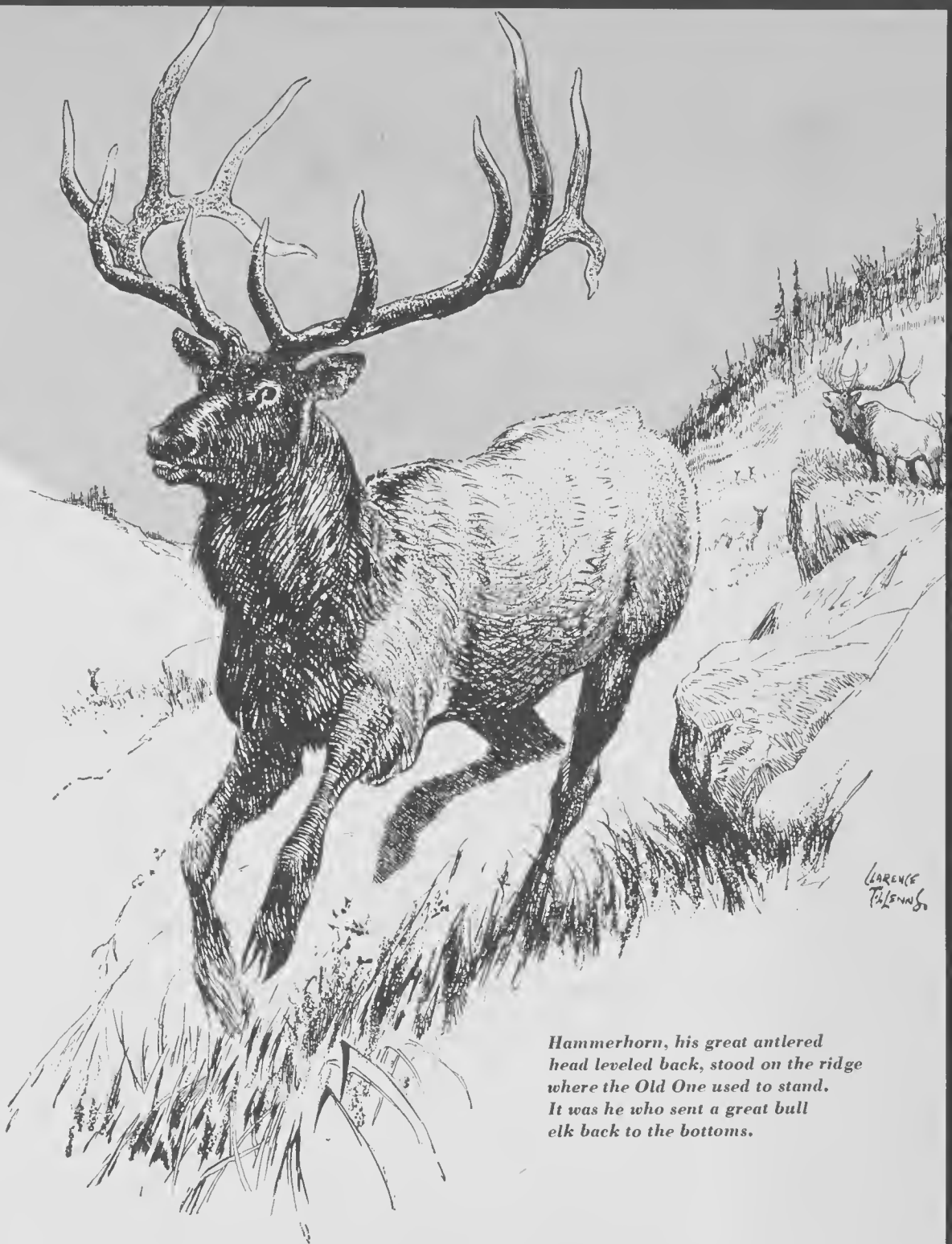
Death-fear brought the old associations: the thicket on the hill, the mother who reassured him, and then—somehow associated with her—the man who cared for him when his mother could care no more.

As the wolves leaped again, Hammerhorn belatedly broke clear of the great drift, and headed down the slopes to the almost forgotten cabin. Minutes later, his rump hard against the sagging door, he faced them.

The pack, wary even of long-abandoned buildings, paused. There could be no circling of the great elk now. The pack-leader, in sudden, savage decision, sprang for his throat. Two others leaped for his flanks.

For Hammerhorn, the downhill run had sapped almost the last of his strength. But now he had a battleground of his own choosing. Better—here by this building of man's, he had never known fear.

As the leader hurtled toward him, Hammerhorn reared. A thousand pounds of weight pressured the plunging, pointed spears that were his front feet. The pack-leader's death-yowl was snow-



Hammerhorn, his great antlered head leveled back, stood on the ridge where the Old One used to stand. It was he who sent a great bull elk back to the bottoms.

smothered as his rib-cavity caved; and, as if they had never been interested, the other four turned and tore out of the clearing.

Slowly the terror-trembling eased from the elk's body. He walked toward the old whetstone; then stood and bawled to the stillness.

The bluff had escaped the fire; and through the drifts, tendrils of sun-cured grasses stirred in the thin wind.

The bull pawed. There was safety here till summer came again.

THE summer had ended, and deep blueberry haze purpled the faraway passes, when Joder hung a crude sign on his office door.

GONE TO WORK—
BACK WHEN DONE.

This time he would camp in the hills till he found Crazyfoot's den.

After a week of searching, he was back where he started: on the floor of the great meadow—waved with coloring grass again—that lay below Pawn's Peak.

Studying the brightness of the October landscape, a high school kid's voice came back to him. *Everyone who ever really saw Crazyfoot, says it was near Pawn's Peak. . . .*

For the past three seasons, Joder had counted more and more bones of clubbed-down elk within a five-mile radius of the mountain; but there wasn't

a foot of this range he hadn't searched—save for a thin belt of stunted scrub that sloped straight west of the peak and cut off the south edge of the meadow from the chasm below.

Joder rubbed his forehead; then took the ancient elk trail that skirted the edge of the big meadow.

Any hunter persistent enough to come this far would never follow it, for no hunted elk would allow himself to be trapped between the open flats and the chasm. It was only a spot where the big bulls could sun in springtime and shelter from the winter gales, the sun-dried pines on one side, the sheer drop of cliff below.

When the trail cut to the chasm, it discouraged any further exploring. For a hundred yards, Joder hugged the path, narrowed by the crumbling thaws of uncounted springtimes. Then it veered back, through tight walls of red willow and rosebriers, into a bulb-shaped patch of green spruce.

The evergreens were only a thin shell; the interior, a small slough—its bottoms baked and dried, filled with shoulder-high bear-grass. There were trails through the grass—tremendous trails, two feet in width—twisting this way and that. All of them converged on a grass-littered windfall at the sunken base of Pawn's Peak.

Joder's breath let go. Crazyfoot's den, at last! And the recluse was hauling in tons of bedding, for the hibernation ahead.

He went no closer. He wanted nothing to alarm the wary one now—perhaps drive him off to some other bailiwick.

His plan was simple. With the first punishing snowstorm, he'd come back—and wait. After all

Illustrated by CLARENCE TILLENIUS



HENRY "POWER PRINCIPLE" LOADER lifts 2,000 lbs. . . . FAST

50° bucket dump puts load where you want it!

New addition to the complete range of Henry heavy duty loaders, the "TS-500" features Henry's new "Power Principle" design which gives full power right to the top of the lift—moves more material per load! Stretches up to dumping height of 9' with 3' 1" reach—yet bucket is close-in at ground level preventing strain on tractor. 20° rollback ensures a fully loaded bucket at ground level and the 50° dumping angle quickly clears it.

Power Principle design and box section construction gives equalized weight distribution, more stability. Elimination of need for cross bracing gives operator top visibility. Latest type hydraulic filter system ensures long, trouble-free life with lower maintenance cost.

Versatile attachments available include: snow bucket, material buckets, fork lift, manure fork, blades, fork lift and crane.

Write for full information on Henry Loaders and Backhoes to fit all popular tractors.

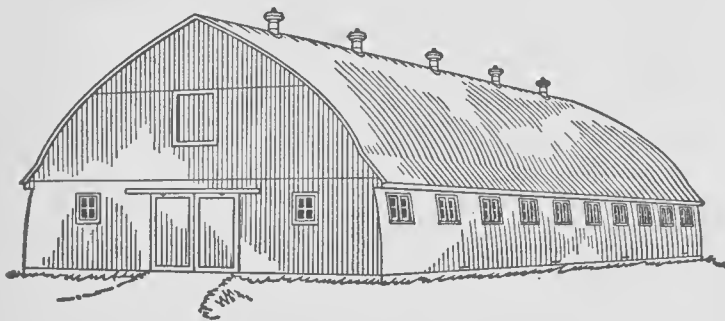
Falcon Equipment Co. Ltd.,
299 Danforth Rd., Toronto 13, Ont.
2875 St. Joseph St., Lachine, P.Q.

Grain Belt Farm Equipment Ltd.,
Box 1184, Regina, Sask.

ALBERTA AND BRITISH COLUMBIA:
Northwest Farm Equipment Ltd.,
Box 351, Calgary, Alta.

Allied Farm Equipment Ltd.,
Box 53, Winnipeg, Man.

There's REAL Security with



WESTEEL "SECURITY" RIBBED GALVANIZED or ALUMINUM Roofing & Siding

Protect your stored crops and livestock from roging blizzards, driving rain and rooring wind with Westeel "Security" Ribbed roofing and siding. Here are some of the features that have made this roofing and siding the favorite of Canadian farmers from coast to coast:

- "Security" sidelap prevents seepage.
- Properly applied, roof is stormproof—protects framework from rot.
- Easy-to-handle lengths.
- Requires no special skill to erect—saves time and labour.
- Backed by more than a century of roofing experience.

8-59

See your local Westeel dealer or mail this coupon today for a FREE estimate on your roofing needs.

MAIL
THIS
TODAY!

Name.....

Address.....

Please send me free illustrated folder and sample.

Send free estimate on Galvanized ☐ Aluminum ☐

Ridge length is.....Rofter length is.....

WESTEEL Products Limited

WINNIPEG • REGINA • SASKATOON • CALGARY
EDMONTON • VANCOUVER • TORONTO • MONTREAL

An all-Canadian, Canada-wide organization

these years, the long score would be settled.

What the ranger did not see was the great bulk of Crazyfoot, standing straight against a fire-blackened stump on the timberline. Bleary eyes studied the man working back across the meadow, disappearing into the deepening haze.

Crazyfoot was too old now to be driven to another hideaway; too tired to dig another den in the frost-nipped nights. Hindquarters wagging heavily, he cut stiffly down the slope, back to the slough.

For a long time he stood by the windfall, studying the way Joder had come—the way, all his instincts told him, the man would inevitably come again.

Then, thoughtfully, he went back to gathering bear-grass.

THE snow, brewing for three days in the November distance, fell at dawn. Joder rolled over on the spruce-bough bed he had cut in against the storm-scarred hillside and felt the flakes tickle his face. Winter had come with a vengeance, swirling its shroud over the waiting Sun Dance Hills.

He sat up stiffly, feeling lower than he had in years. How, he asked himself, would his elk make out when he was no longer game guardian of Sun Dance Hills?

He'd known it was coming. The regulations said 65. The fact that he felt fitter than a man of fifty didn't change red-tape rules. He'd known it when the phone rang the day before—known it by the heartiness of the superintendent's voice.

"How're things in your hills, Joder?"

Joder had learned nothing of diplomacy over the years. "How do you expect things are in my hills?"

"Troubles?" The superintendent was noted for his tact.

"No more'n usual."

"Joder," the superintendent said, "it's time you quit playing nursemaid to those elk. You've done a magnificent job. Built up the herds—got public support—Joder, you've made the Sun Dance the best hunting area in Alberta!"

Joder never did take to praise. "The wrong guy can ruin it all!"

There was a pause, then the superintendent said firmly:

"We try not to pick 'em wrong, Joder. For you, we've tried extra hard. We're sending in the best man we've got—you can expect him some time this evening. Phone me back if I'm wrong, Joder."

"I'll do that," Joder said, and hung up.

He drove through the streets of Sun Dance, almost empty in the thin November wind. At the check-in station, he told Pop Grady to give the new warden a welcome. He stood at the trailer window, studying the sour, lowering sky.

"There's an east wind. She'll break by tomorrow's dawn. Either I get Crazyfoot then or I never get him."

"He's that important?" Pop shook his head.

"He's part of my job." There was a hard line to Joder's jaw. "My life—I dunno if it's been much. All I know

is whatever I undertook to do, I've done. And I undertook a long time ago to get Crazyfoot."

"Let this new guy!" Pop argued.

"You think any new guy'll make overnight camp in the November hills?"

Joder snorted and strode out. Pop Grady told people Joder had picked up the snorting habit from living too long with elk.

NOW, sipping the scalding black coffee he'd brewed, Joder had the grace to feel ashamed. New kids needed their turn, too. Maybe whoever was coming in was like Joder had been once—proud of the job he had to do, sure of his ability to do it, but—just the same—hoping for a strong smile and a firm hand.

Trouble was, when you'd been as close to the elk as he had—when you'd once carried a bull like Hammerhorn in your arms—well, you couldn't expect some stranger to understand that.

And there were rangers and rangers. Some liked the uniform; some the pay. Some were good at playing fish-warden, catching you without a license. To be a warden of the old school, you needed something special. Maybe you had to be born with it. But if you didn't have it, it would only be a few years till the hunting on Sun Dance was no more.

He got up and, from long habit, carefully killed the fire. There was a tightness inside him he didn't like, as he checked the barrel of the gun for frozen snow.

Then, side-slipping on the powdered slopes, he headed for Open Creek.

The storm brought Crazyfoot out from the cavern below the windfall. Its mouth was bigger than an oaken rain-barrel; hair scraped off as he squeezed himself forth.

The years when he had denned up the whole winter long were far behind him now. His race were remnants of the buffalo-killers on the plains. He would feed till his sides were heavy; sleep; come forth again. Now, when his legs were no longer fast, he welcomed the cover of the snow.

There were elk aplenty, sheltering on the slopes and sidehills, but his hunting luck was foul. Hammerhorn caught the sickening taint first. Warned by his snorting, the band broke and scattered in the storm.

The bear woofed his irritation and lunged toward the enormous bull that



"Ye Gods—What some of them do with our wool!"

had been bedevilling him of late. Instead of fleeing, Hammerhorn snorted, lowered his sledge of antlers and lunged at the grizzly.

Crazyfoot rose and side-stepped, ready to paralyze the plunging bull; but Hammerhorn swung and ghosted on into the storm.

Time and again, Crazyfoot worked into the wind, sliding in on some high-crowned snorting elk; and time and again, the same bedevilling bull leaped out of the storm to thwart him.

Winded at last, the bear rose upright, his arms weaving in the futility of hate. Piggish eyes blinked at the falling snow; and suddenly — unbelievably — the taint of bull came to him strongly.

Another elk, almost as huge as the one tormenting him, was stalking straight toward him.

For the Old One, his blind eye to the storm, there was scarcely any warning. Sheltering on the ridge he had long claimed as king, the daze that had been claiming him more and more of late, was penetrated finally by the danger-snorts of Hammerhorn. The Old One died as he had lived so many years — on his way to help his own.

Crazyfoot, sinking on all fours to feed, rose again in alarm at the deafening roars from the enraged Hammerhorn. There was no need for quiet now. The bear bellowed back his own hate.

JODER, who had seen horses and range-cattle driven to madness by the blood-smell of their kind, heard the mad bawling of Hammerhorn even before he sighted the cows and yearlings ghosting nervously in the storm.

"Spooked," the warden muttered. "Or no leader. Or both!"

He knew, too, that a riled bull elk is far more dangerous than a dim-brained bull moose — dangerous enough, too, when wounded or irked. In this storm, the last thing he wanted was to be charged by one of them.

In the spraying snow, he almost stumbled over the Old One's body, lying only a few feet from the meadow's end. Crazyfoot had been feeding long enough to be gorged; even so, the great grizzly's prints were so fresh, he could see the six-inch claw marks.

Joder stopped, slipped a heavy-grain bullet into the chamber, patted the battered stock of his old saddle gun. Even as he stood, the gigantic silhouette of an elk—Hammerhorn—stepped, sniffing, toward the fallen bull. The ranger moved; and the elk leaped back, hooking his antlers into the storm.

"You take it easy, big boy." Joder's lips moved soundlessly. "Maybe you're mad enough to kill. But Crazyfoot isn't fooling, either."

The bear-prints moved straight along the elk path to the gorge. Joder followed them.

They turned east on the narrow ledge. Only once did Joder look down. The snow was a fantastic spiderweb, stretching and slacking across the chasm below. Knowing how grizzlies like to wait on ledges, he kept his finger near the trigger,

till the trail angled back into the scrub.

The tracks were fresher now—farther apart. The bear was running. Where the path entered the open slough, Joder stopped, straining to see the windfall at its far end.

The bear undoubtedly had caught scent of his coming. Crazyfoot might be in the den. He might have taken himself up the hillside at the man's approach, able to grip slopes no man could scale. . . .

So Joder thought. And he was wrong.

Crazyfoot had made a complete circle and was coming back along the ledge.

Fifty yards behind his hated hunter, he rose silently on his hind feet, to kill.

No sound from the grizzly, but a bull-bellow from the maddened elk made Joder leap around. As if it was a living thing, the old rifle leaped to his shoulder. The shot was swallowed in the storm.

Crazyfoot stopped heavily, still upright, a red ring opening on his shoulder. Joder levered the rifle—and the bullet rose at an angle in the chamber. The oft-fired ejector hadn't flipped the fired shell.

Eyes on the bear, Joder pulled the jammed bullet free and sharply worked the lever again. Again the ejector failed to flip, and the live bullet angled up in the plugged chamber.

Joder unsnapped the case of his sheath-knife, eyes still on the bear, right hand reaching for the knife. It slipped through his numbing fingers and fell somewhere at his side, in the snow.

As if reading what was wrong, Crazyfoot stepped toward him.

It was a slow and terribly deliberate motion. To the back of Joder was Pawn's Peak. Around him was an

EVERY LICK PUTS MONEY IN YOUR POCKET!



Healthy farm animals are productive, profitable animals —and Sifto Salt keeps them that way! Calcium Iodate in all Sifto Livestock salt —blocks, licks and loose— holds the exact amount of iodine in the salt until digested. Keeps production up, feed costs down!

For healthier livestock—always feed

sifto SALT

with **CALCIUM IODATE**

PLAIN IODIZED or COBALT IODIZED
50 lb. blocks—5 lb. licks
and loose in 100 lb. bags

sifto salt limited

Every kind of salt for the home—farm—and industry.

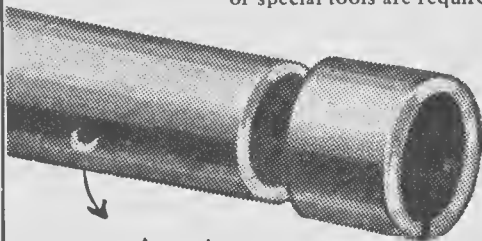
For modern septic tank disposal beds

use genuine

NO-CO-RODE*

SEWAGE AND DRAINAGE PIPE

You can get a lifetime of trouble-free service from your septic tank disposal system if you insist on "NO-CO-RODE" pipe. Use Perforated pipe with special snap couplings for the disposal bed, and Root-Proof pipe for the house to tank connections. The long, lightweight sections install quickly and easily. No caulking compounds or special tools are required.



MURRAY-BRANTFORD LIMITED

Manufactured by
NO-CO-RODE Company Limited, Cornwall, Ont.

SAINT JOHN, N.B.
MONTREAL
TORONTO
WINNIPEG
VANCOUVER



FREE! "How to Install Booklet"—
See your local Murray-Brantford
dealer or use this coupon to get your
copy of this booklet which provides
complete information on laying
out and installing a "NO-CO-RODE"
septic field system.

*Trade Mark Registered

MURRAY-BRANTFORD LIMITED

Sun Life Bldg., Montreal, Que. CG-4

NAME

ADDRESS

TOWN..... PROV.....



Now! Once a Month Shopping

• **A BIG REFRIGERATOR**

• **A BIG ZERO ZONE FREEZER**

to hold ALL your fresh and frozen foods



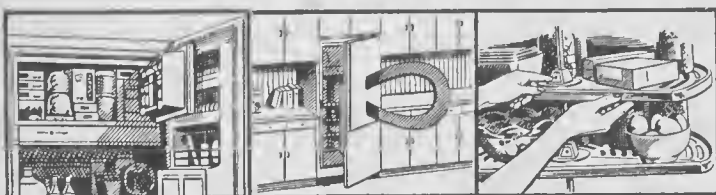
RLM-130

NEW 13 cu. ft.



GENERAL ELECTRIC
combination
REFRIGERATOR-FREEZER

It's two G-E appliances in one space-saving design. Load the BIG automatic defrost refrigerator section with all your fresh foods . . . there are vegetable crispers, adjustable door shelves, butter and cheese compartments and a foot pedal door opener . . . put all frozen foods in the True-Zero Degree Freezer for safe long term storage. The General Electric Combination Refrigerator-Freezer uses the same floor space as an ordinary refrigerator—gives your kitchen a built-in look with G-E Straight-line styling.



G-E True Zero Freezer—holds up to 67 pounds... deep-freezes food for months. Freezer door has juice can dispenser and ice cream rock.

Magnetic Door — no noisy mechanical latch — closes smoothly, effortlessly and, the G-E refrigerator door is completely child safe.

Exclusive Revolving Shelves — they swing out front at the touch of your finger for effortless food selection—adjust up or down.

CANADIAN GENERAL ELECTRIC COMPANY LIMITED

impenetrable entanglement—a death amphitheatre closed in by brush and brier. He would never have time to struggle through it if there was strength at all left in the great hulk stepping irrevocably nearer. To stoop and hunt for the knife was bad—temptation to the bear to charge. . . .

Joder was aware of a scrambling sound on the ledge — Hammerhorn, sobered by the report of the rifle. He was used to rifle-fire, knowing well when the shot was aimed at him—as any bull knows in the fall. On a crisp, clear day, faraway shooting rolled sharper than this, close at hand, in the storm.

"Don't go away, Hammerhorn!" Joder's words were a prayer. "Come to me, boy. Take his attention. Make him turn long enough for me to get this empty out—"

Come to me!

Long, long ago it had been hard to keep Hammerhorn away. A whistle, when the man was half-a-mile up the hillside—or hidden in a tree. . . .

Joder put his freezing thumb and forefinger between his teeth and whistled the sharp *come-on!* call again. In the silence that followed, he held his breath.

At the whistle, Crazyfoot stopped and, almost wonderingly, slapped a huge fist at the spreading stain on his shoulder. He was so close now that Joder could see the great overhooking front teeth—hear the wheeze of his shattered breathing. Beyond that—suddenly—he saw what the bear was never to see: the huge rack of Hammerhorn, tossing as the bull turned in from the ledge.

What Hammerhorn saw had nothing to do with his sudden confusing obedience to the call of the long ago. He saw only the chocolate-shouldered hump of his long-hated enemy—unable to side-step this time, fenced in by the narrow trail. Blood madness—born of many fights alongside the Old One in the past — made fire in his brain.

Hammerhorn pawed once and charged; and the thousand-pound bulk of the great bull elk hit the grizzly from behind.

The impact catapulted Hammerhorn backwards, but the hulking bear went down. Crazyfoot twisted on his broken shoulder, in time to see a blur of blood-tipped battle-antlers exploding above him. . . .

For an incredible minute, the great elk gored; then he leaped upright, and his plunging forefeet drummed a death-tattoo on the inert mass that once was Crazyfoot.

SWALLOWING cold sandwiches back beyond the meadow, Joder wondered about it all. Seemed to him—now—he could see Crazyfoot's side of it a bit more clearly.

That wound behind his neck, irking him over the years . . . that was what had driven him from the blueberry bogs, from the lower ranges with their bear-dict staples . . . up here to the remote country where there was only living meat. To kill it, he'd *had* to be cunning.

Maybe he'd known fear, too—the funny fear that comes when all those you've loved are gone . . . a long fear, that time and trouble had turned into living hate.

"You know I had to." Seemed to Joder he was seeing the great bulk again. "They were my elk, Crazyfoot. . . . But I'll never think of you without wondering just who was most to blame."

He was draining the last of the coffee when he heard the shout. The snow had ended. Cold was settling down on the hills to stay.

"Joder! Halloo-oo-ol!"

Joder frowned and stood up.

There was something mighty familiar about the young warden sprinting around the edge of the meadow—and it had nothing to do with the smart light-khaki uniforms they'd all been issued of late.

As the ranger came closer, Joder suddenly had the weird feeling he was losing his mind.

"Joder!"

"You!" Joder sat down again. "You're the new warden? You go get a good education — and this is what you do with it!" he said it accusingly.

Ken Currie laughed.

"Why not? It's a living! Pop Grady told me you were up after Crazyfoot. I spent the night at home, then started up here early. I guessed where you'd be looking."

"Yeah," Joder conceded. "I guess you did at that. Well, you missed out on something a bit exciting—"

"Joder!" Ken Currie wasn't listening. He was pointing to the east. "Up there! Isn't that—"

Joder got back to his feet.

Hammerhorn stood on the high ridge where the Old One used to stand, regal against the hills. The great antlered head leveled back. The high-pitched whistling rose in volume, till it was a bass bugle echoing deep into the hills.

Atta-tattoo! Tatt-tatt-too-ol!

It was a full minute before Ken Currie could tear his eyes away. Then he looked questioningly at Joder.

"Kind of excited for this time of year, isn't he?"

"He's got his reasons," Joder said.

He looked at Ken Currie, with a look he'd never given to many. He felt good inside. It had turned out better than he'd ever dreamed.

"Yep, Mr. Ranger," Joder said softly, "a fellow's entitled to brag a little when he's just become a king." V

THE END.



"Bill says he can't take over the milking Nancy. You'll have to go to Niagara Falls alone."

Home and Family



[Don Smith photo]

A SPECIAL spirit of adventure fills the air this time of year, inviting young and old to heed its puckish call. It lures little ones to poke into newly discovered, different places; it calls deskbound students to listen to a meadow lark outdoors, or watch for the puffy traces of a jet overhead; it revives nostalgic memories in those more mature of years and challenges them to renew their ability to accomplish. Adventure's call goes hand in hand with the wonder of growing things.

Our young adventurer, in his own way, has surrendered to the call. To him the field beyond the fence is infinitely better than any other for here is a new world to explore. And

the fence is not so much an obstacle as a hindrance, something to be overcome. Instinctively, with a maturity belied by his years, he recognizes the need for the momentary slowing of pace to steady himself, to fix his balance as firmly as possible and then gather his strength for the effort required to carry him up and over to the other side.

Here, in embryo, is the adventurous spirit that prompted men to sail into yesterday's unknown, to settle a new world, to delve into scientific mysteries, and now to fly into space. It is a spirit that, cherished and nurtured, keeps the eyes shining and the heart young.

by ELVA FLETCHER

MOTHER! An Unhappy Child is a "SICK" Child

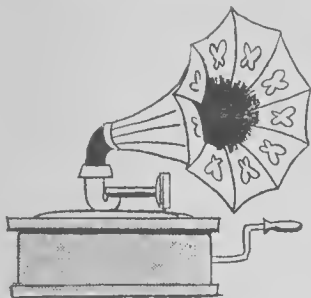
Yes, mother when a child is cross, upset and feverish, doesn't want to play . . . won't eat . . . you can be sure something is wrong. For children are naturally happy, carefree and full of the fun of living.

So when these little upsets come, wise mothers have for years depended on CASTORIA to set things right again. CASTORIA is good for your child, and it does nothing but good. It gently but surely cleans the child's bowels of accumulated poisonous wastes without griping or shock. Soon your little one is happy again.

Children Cry For

CASTORIA

TRADE MARK REG.



REMEMBER the old phonograph?

Grandma burst with pride showing off her "modern" gadget. She was just as proud of her white, white wash. No gray looking clothes for her! She depended upon Mrs. Stewart's Bluing, her wash-day helper, as modern and good today as it was then.



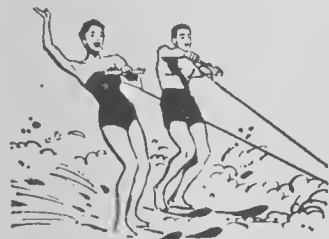
... also remember
Mrs. Stewart's Bluing

A laundry favorite since
Grandma's day for those
who want a really white wash.

MRS. STEWART'S BLUING
287 Stanley St.
WINNIPEG 2, MAN.

MAIL THIS COUPON

Discover how much fun
YOU CAN PACK INTO A DAY IN
ONTARIO



FREE!

ONTARIO TRAVEL
141 Parliament Bldgs.
Toronto, Ontario.

Send free literature and
road map

I am particularly interested in

PLEASE PRINT CLEARLY

Name _____

Address _____

Post Office _____

Ontario Department of Travel & Publicity,
Hon. Bryan L. Cathcart, Minister.

KNOW ONTARIO BETTER



Your first
hooked rug may
be made from
new or old
materials.

Your First Hooked Rug

by GRETA G. CARROLL

IF you are looking for an easy and satisfying craft, why don't you consider hooking a rug? Your rug can be as large or as small as your enthusiasm; you can trace a design or draw your own; and it's an excellent use for the scraps of material that accumulate about the home.

Rug-making is a craft that goes back into the depths of antiquity for even the earliest peoples found a need to cover their bare floors. Little is known about the origin of the hooked rug that continues to hold the affections of new world handicrafters, but country and village women from the first days of settlement in North America gave their homes warmth, and beauty too, by hooking colorful floor coverings from bits and pieces of fabric. They also found an outlet for their creative energies in developing their own designs.

The essentials, as in any craft, are a good collection of materials, a wooden frame to hold the canvas or burlap taut as you work, a steel rug hook and a desire to accomplish.

A most unpromising assortment of rags will hook into a really lovely rug if properly ripped, washed, bleached or dyed, then pressed smooth. Little accidental streaks or blotches do not matter and may even add to the beauty of the finished product. But if you plan to do your own dyeing, be sure to set your dye properly so the material is all color fast. You should start with plenty of material, as it takes an unbelievably large amount for even an average-sized scatter rug.

It is wise for a beginner usually to start with a variety of colors. These will lend themselves to a floral rug, but my experience is that the first rug is better if it is hooked in a geometric or hit-and-miss design.

The materials selected should be of the same weight and quality. For instance, a wool rug should be woolen all the way through. A mixture of materials makes a rug that will show wear unevenly.

Enthusiastic cutting of great piles of strips ready for work can spell trouble. It is wise to cut a few strips and hook them in to find the right width for each type of material. Many workers prefer to cut the strips as needed. This is good practice for a beginner.

Hold the cloth or wool strips between the thumb and forefinger of the left hand underneath the canvas and draw the loops through the mesh with the hook in the right hand.

The hook is given a slight twist as each loop is finished before picking up the next one. This little characteristic gesture, automatic with skilled workers, causes the loops to sit snugly and stay in place. Pull the end of each new strip up through the same hole with the end of the finished strip. Keep all ends on the right side of the

rug, trimming away any that stick up beyond the level of the loops.

The rule in hooking is to skip one thread of the burlap between loops. If you jam the loops by hooking in every interstice of the foundation, your work is overcrowded, and you will make a lumpy rug. Check the underside now and then for skimpy places. These always show more plainly on the back. A medium size hook is best; a large one punches holes in the burlap and a small one tends to catch in the work.

The border, usually black or some dark color, is worked in first. Then hook to outline the motifs of the design on important areas of the rug. After this, put in a bit of material hooked here and there all over it. This method keeps the burlap at the same tension everywhere. It will also give you some idea of how the colors will look, and the amount of material needed. Backgrounds usually take more than estimated, so it is a good plan to blend several shades and materials in this area rather than depend on just one.

SIT in a chair the right height, one that will support your back. Straighten up now and then to take a restful look at the rug. Walk around the room a few minutes or do some little kitchen chore. Continued bending over your work can induce a tired feeling and occasional breaks help you to stay on the job longer.

As your work progresses lay the rug, frame and all, on the floor and take a look at it. Small imperfections disappear when the rug is viewed in this normal position. But, if there are any large ones you feel may permanently displease you, now is the time to take them out.

There are alternate methods to finish rug edges. The canvas may be cut evenly on all four sides two or three inches from the edge, and these edges turned back and hemmed down so that the canvas edge is invisible when the rug is laid on the floor. Another method is to face back the edges. In yet another, the canvas is turned back about two inches on the right side and loops are pulled through both thicknesses.

The quick and easy although more expensive way to acquire your rug is to buy the stenciled canvas and rug wools from handicraft centers, or to order your needs by mail from a handicraft outlet. One such source issues a catalogue showing rugs of various designs and shapes; it also supplies readicut wools in required lengths.



With your first rug complete you may want to try a more complicated design.

[U.S.D.A. photos]

Car Camping Trails In the Rockies

By **CLIFF FAULKNER**

A low-budget holiday awaits visitors to conservation forests on the eastern slope of the Rockies



[Guide photos]
The conservation road has a well-maintained gravel surface. Here is Seven-Mile-Flat as seen from Corkscrew Mountain in Alberta's Clearwater Forest.

MAYBE, like the rest of us, you've dreamed of pointing the nose of your car away from the tire-worn tourist trails of our National parks, and feasting your eyes on a piece of virgin country. The place you have in mind is a big expanse of Nature's real estate—where the wildlife is still plenty wild, and all the views haven't been immortalized on picture post cards.

If that's the case, Alberta's Kananaskis Road is waiting for you, plus a new 160-mile extension to the north which some day will reach right up to the Jasper highway. That makes about 300 miles of real driving, winding past summits, and through deeply-cut valleys along the eastern slope of the Canadian Rockies. And you don't have to peer over flashy billboards to see the sights.

But a word of caution here—the Kananaskis is no speedway. Best to chug along at speeds well below what you're used to and obey all warning signs, because they really mean what they say. Signs and guard rails are few and far between in this country, and you'll only find them placed in the "touchiest" spots. Another reason for taking it easy is the wildlife. Crashing into an elk or moose is hard on the animal and could be hard on you.

While we're talking caution, make sure you have a full tank of gas, a good spare tire, and a supply of grub along. You won't find any service stations or roadside snack bars on the Kananaskis—just a great, wide stretch of unspoiled out-of-doors. The people who look after it ask only that you help them keep it this way.

The Kananaskis, and the new Bow River-Nordegg stretch are conservation roads. They were built by a joint Federal-Provincial government body called the Eastern Rockies Forest Conservation Board, to get fire crews and other workers into the timbered watersheds that feed the northern Great Plains. The roads run through the Crowsnest, Bow River, and Clearwater Forests, which lie south and east of the famed Banff and Jasper National Parks.

These forest reserves were set up as long as 40 years ago, but getting in there was strictly a pack-horse proposition until about 1952. That was when the Board finished the first 140-mile stretch from Coleman north to the Kananaskis Basin, where it joins the main highway to Banff. Later they added another 160 miles—taking the road clear up to the headwaters of the North Saskatchewan River.

HOW do you get started? The southern half of the conservation road begins at Coleman, a mining town on Alberta Highway No. 3, about 60 miles west of Fort Macleod. You can reach it by way of U.S. 89 through Browning, Mont.,—or by U.S. 91, heading north from No. 2 at Shelby to Lethbridge, Alta. Coming east through British Columbia on No. 3, you enter Coleman about halfway through Crowsnest Pass.

On the outskirts of the town, you swing onto the



Small fry try for the big ones at the junction of free-running Ghost River and Waiparous Creek.

Kananaskis Road at the Crowlodge Ranger Station. A permit is needed to enter the reserve, but that's provided free-of-charge at any of the entrance gates. If you're packing any shooting irons, you can get a permit for those at a ranger station, but you'd better take time to bone up on hunting and fishing regulations while you're there.

Seven or eight miles beyond the station, the road crosses Vicary Summit where you catch your first glimpse of the far country. Those frost-wedged

peaks to the east belong to the Livingstone Range—west and south you'll see a group of peaks called Seven Sisters, and the big limestone tower known as Crowsnest Mountain. About Mile 20, you hit the summer cattle ranges along Racehorse Creek, and not far on, the first of the many Alberta Government camp sites that've been provided for you along the way.

THERE are 17 of these camp sites, each equipped with roofed shelters, stoves, water, and outdoor toilet facilities. Some are located a little way off the main road, but they're easy to find if you follow the signs. If you want to stay the night, there's lots of room, but no rooms—you'll have to get out that tent of yours and sleep under canvas.

North of Livingstone Gap Ranger Station, and the second camping site, you drive through heavy stands of jack pine, broken by patches of open grassland. These mountain meadows provide summer rations for some 3,000 head of beef cattle driven into the Oldman and Livingstone Valleys from the big ranch outfits to the east. If you're lucky, you might even glimpse the odd band of mountain sheep.

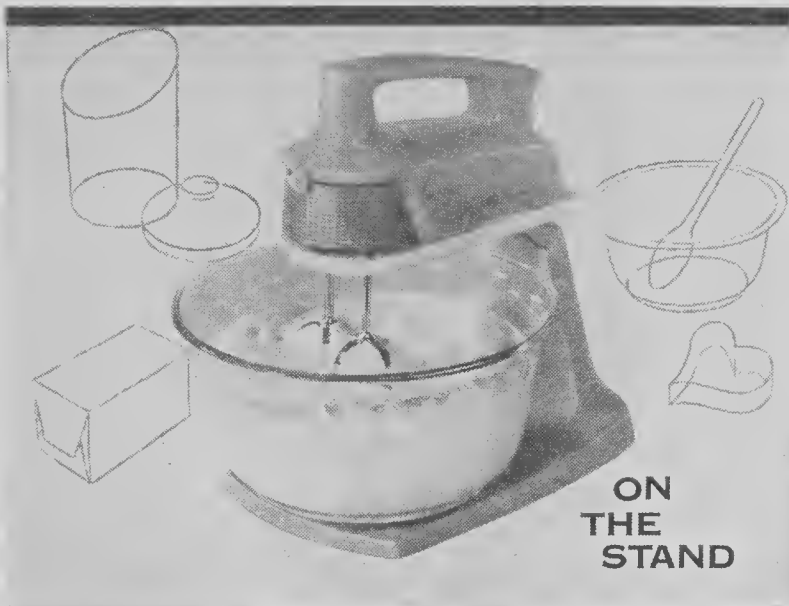
At Mile 45 you pass a narrow branch road that swings east to the town of Nanton, then, a few miles farther on, hit the mountains again as you wind up over Wilkinson Summit. For the next 30 or 40 miles you can feast your eyes on real skyline country until you reach Highwood Summit—at 7,239 feet, it's the highest stretch of engineered road in Canada.

You're only a couple of hundred feet below timberline here, enclosed in a narrow, rock-bound valley where 10,000-foot mountains rear right up from the roadside. You might just have to drive



A family group enjoys the unspoiled beauty found in the Bow River sector of the Eastern Rockies.

Here's the handiest mixer of them all...



NEW GENERAL ELECTRIC TWO IN ONE MIXER

LIGHTWEIGHT
POWERFUL
CONVENIENT



It's a powerful stand mixer! It's a lightweight portable too! Use it on the stand for heavy or long mixing jobs... a special governor control assures full power at all 12 speed settings.

Use it as a light-weight portable for fast on-the-spot mixing jobs. Simply release the mixer from the stand. Comes complete with two big glass bowls and 6 foot cord.

It's a stand mixer with *portable* convenience—yet it is only two-thirds the price and half the weight of conventional stand models. See it at your nearest dealer's.



12-Speed Selector
assures precise mixing for every job. Large mixing chart lists setting for 22 recipes.



Heel Stand for Portable Use
Drippings fall back into the mixing bowl. Mixer is fitted with attractive vinyl bumper guard.



Fool-Proof Beater-Ejector
Simply flick the lever and beaters drop out for easy cleaning.

MORE CANADIANS CHOOSE GENERAL ELECTRIC APPLIANCES THAN ANY OTHER MAKE!



GENERAL ELECTRIC TWO IN ONE MIXER

CANADIAN GENERAL ELECTRIC COMPANY LIMITED

through a few remnants of the winter's snow.

From Highwood Summit the road follows Pocaterra Creek, veering steeply down to the Kananaskis Valley. At Mile 96, the Upper Basin can be seen to the west, with the sky-blue Kananaskis Lakes against a backdrop of peaks and glaciers of the Continental Divide. Below, to the left, the picturesque Eau Claire campsite beckons from the Kananaskis River.

Beyond the Forest Experimental Station, at the valley's end, is the Calgary-Banff highway — now a part of the Trans-Canada Highway No. 1. To reach the other half of the conservation road you turn east on this highway, toward Calgary, and travel about 17 miles. At this point you might want to break your journey, and spend the night at Calgary or Banff.

THE upper part of the Eastern Rockies road is a holiday pie you can take at one sitting, or enjoy piece by piece. Coming west from Calgary on No. 1, you leave the highway about 10 miles beyond Cochrane and enter the reserve near the Ghost Ranger Station; or you can head north from Calgary on Alberta Highway No. 2, and turn west at any one of three towns—Olds, Innisfail, or Red Deer. These branch routes join the Conservation road at the Red Deer, Clearwater, and Nordegg ranger stations, respectively, giving you

a choice of loop tours to the north and south if you haven't time for the whole run.

Like the Coleman-Kananaskis, the upper section is an all-weather gravel road, liberally dotted with ranger stations and camp sites. You stand away from the big mountains on this leg, and pass through heavily timbered foothills.

Just past Chost Ranger Station (near the road's lower end) you can drive off to a gravelled viewpoint that give a clear sweep west to the jagged Black Rock Mountains, and the Devil's Head. At Mile 47, the road swings across the Red Deer River; you might want to unlimber that rod of yours here and try for some Rocky Mountain whitefish, or sleek rainbow trout.

Farther north, around Mile 125, you reach the Ram River. Here a trail leads east for about half-a-mile to Ram Falls, where the river thunders into a deep, rocky gorge. This is one place you can really get that camera in action, providing you haven't used up all your film.

By the time you drop down to the island-dotted North Saskatchewan River, you're nearing the old coal town of Nordegg, gateway to a great new vacationland to the west and north. If you're running out of time—or luck—at this point, you can get gas, repairs, meals, and accommodation here, or drive east to Red Deer on Highway No. 2 and head for home. ✓

Beautify Your Bedroom



INSTRUCTIONS for the co-ordinated bedroom accessories shown above are all available on one leaflet, No. C-S-571. It includes crochet directions for a handsome striped rug, bedspread, bench cover and lamp shade covers.

Designed to be worked in strips, the rug can be made any desired size. Four sizes are suggested: 32" x 42"; 45" x 65"; 59" x 85"; 72" x 108" (excluding fringe). The amount of yarn required for these sizes is listed.

Finished measure for the bedspread is 99" x 120". The spread may be

made all in one piece or in 11 strips, each 9" x 120", sewn together. Edging shown is of 2" velvet ribbon mitered at the corners.

The metallic yarn suggested for the bedspread is repeated in the bench cover. Finished measure is designed to cover a foam rubber pillow 22½" x 15" x 3".

The lamp shade covers fit parchment lamp shades measuring 10" in diameter at top, 12" in diameter at bottom and 8½" in depth.

Price of leaflet C-S-571 is 10 cents. ✓

For handcraft patterns pictured above please address your order to The Country Guide Needlework Department, 1760 Ellice Ave., Winnipeg 12, Man.



It did not take long for Sheepshanks, the orphan lamb, to win a special place in Griselda's heart.

First Crop

by
DONOVAN CLEMON



As he grew to maturity he became a handsome animal with a thick, heavy fleece that pleaded to be sheared.

"DADDY, Sheepshanks is panting," called Mary, from the yard. I walked over to have a look. Sure enough, our sheep appeared to be in great distress; his pants were coming fast. "This fellow will have to be shorn." Here was a problem that had literally crept upon us.

I had purchased Sheepshanks when he was a little orphan lamb as a pet for my two daughters, intending to butcher the beast as soon as he was big enough. Somehow I kept postponing the deed. The fact is, I had grown fond of him and the idea of disposing of him was repugnant. Many a time he had sauntered into the barn when I was milking, laid his chin on my knee, and gazed up at me with his trusting, sheepish eyes. So he wintered with the cows and now I was confronted with a shearing job. I knew the wool had to come off, but I just wasn't eager for the task. Still, there couldn't be too much to this business of shearing sheep for I had read that an expert could take off a fleece in 60 seconds. But because I was a bit afraid I might bungle the job and lose face, I said to my daughters, "It's your sheep; you shear it."

The girls were not daunted. The shears discarded in favor of more easily handled scissors, they got on with the job. An hour and a half later it was well underway. Sheepshanks, coatless, looked almost gay. I'm sure he nearly gamboled down the road. V



Mary and Griselda held a conference to discuss the situation. The shears, they decided, were difficult to use. They would try scissors. But where to begin?



At the beginning Sheepshanks was a trifle nervous but he got used to it. As the girls worked at the cutting Mary exclaimed, "What a lot of wool he has. No wonder the poor thing panted."



In next day's mopping-up, Mary trimmed the underparts and legs. Sheepshanks looks a fright but he'll be respectable again soon.



When the girls had put Sheepshank's wool into a bag they found they had 8 pounds. "Thank you," says Mary. "We hope you'll grow us another bag full again next year."

PLANNING TO BUILD?

Borrow this Catalogue



144 modern home designs by Gordon L. Clark, one of Canada's leading residential designers.

All plans have material lists and detailed building instructions at your favorite lumber yard or send \$1.00 to:

CLARK HOMES LTD.
Haney, B.C.

Money refunded when you return catalogue



Better Living Keeps Young People on Farms

Improved living conditions are keeping more and more young people on the farms. For this reversal of a very serious trend we can thank modern plumbing. The old-fashioned farm involved far too much back-breaking drudgery and far too few amenities. It is no surprise that young people left for the cities.

Nowadays any farm can be just as comfortable to live on as a city home, with all the reduction in chores and all the increase in personal comfort, cleanliness and refreshment that running water brings. A Duro pump, tank, piping, kitchen and bathroom fixtures help farm people to a better, more satisfying life, and water supplies in other buildings mean a lot less work.

There is plenty of information available on how to install running water and on modernization. Any farmer who wants better living can write to Emco, London, for free information.

EMCO LIMITED,
Department CG4-5,
London, Ontario.

Please send me information about Duro Water Systems and Emco's OHI Budget Plan.

Name.....

Address.....

Summer Harvest of Color

by GWEN LESLIE

WILD harvest or garden patch, handfuls or bushels—the fleeting season of fresh fruit elicits eye and finger and tastebud alike. April showers and May flowers are but a prelude to the mouth-watering goodness of tangy red rhubarb, succulent strawberries and all the color-rich fruits to follow.

Fragrant fruit pies and tender shortcakes are a family tradition for many of us, and a popular one. But don't neglect the many other ways in which fresh fruits can make summer menus memorable. Fill your best jelly roll with fluffy whipped cream and sliced strawberries, saving a little cream and just a few berries to garnish the top. Fill one large meringue shell (or shells sized for individual servings) with the fruit in season, sweetened to taste. We'd suggest you file the following recipes in anticipation. And may the blossom promise be fulfilled!

Preserving permits us to hoard our summer treasure. If the following booklets are not already in your kitchen library, order them now:

1. Home Canning of Fruits and Vegetables.
2. Freezing Foods.
3. Jams, Jellies and Pickles.

Free copies are available from the Information Service, Canada Department of Agriculture, Ottawa.

Rhubarb Betty

- | | |
|-----------------------------------|--------------------------------------|
| 2 c. tiny bread cubes | 1 1/4 c. brown sugar, lightly packed |
| 1/4 c. melted butter or margarine | 1/2 tsp. cinnamon |
| 3 c. rhubarb, diced | 1/4 tsp. nutmeg |
| 3 T. water | 1/2 tsp. grated lemon rind |
| | 1 T. lemon juice |

Sprinkle bread cubes with melted butter. Dice rhubarb in 1/2" lengths, and sprinkle with sugar, cinnamon, nutmeg, lemon rind, lemon juice and water. Arrange half of the buttered bread cubes in a 6-cup casserole, cover with the rhubarb mixture and top with remaining bread cubes. Cover and bake at 375°F (moderately hot oven) for 20 minutes. Uncover and continue baking until rhubarb is tender and topping crisp, about 30 minutes more. Serve warm with cream or custard sauce. Yields 5 or 6 servings.

Strawberry Tulip Dessert

- | | |
|------------------------------------|---------------------------------------|
| 1 pkg. strawberry flavored gelatin | 1/2 c. sugar |
| 1 c. hot water | 6 marshmallows, finely cut (optional) |
| 1 c. cold water | |
| 2 c. halved fresh strawberries | 1 c. cream, whipped |

Dissolve gelatin in hot water. Add cold water and chill until slightly thickened. Combine strawberries and sugar and let stand 10 minutes. Place slightly thickened gelatin in a bowl of ice and water and whip with egg beater until fluffy and thick. Fold in strawberries, marshmallows, and whipped cream. Spoon into loaf pan (9" x 5"). Chill until firm. Unmold and slice to serve. Makes 12 servings.

To garnish, whip 1/2 c. cream. Spoon over top of loaf making two rows of small puffs. Top each puff with a strawberry slice. Split 4 marshmallows to make 8 circular halves. Using a small sharp knife, cut each marshmallow half into

the shape of a tulip. Mount four tulips on each side of the loaf at the base and garnish with mint leaves.

Raspberry Delight

- | | |
|----------------------------|-------------------------------|
| 1 1/2 c. fresh raspberries | 1/3 c. sugar |
| 2 T. hot water | 1/8 tsp. salt |
| 2 1/2 T. sugar | 2 T. lemon juice |
| 2 egg whites | 3 T. juice drained from fruit |

Dissolve 2 1/2 T. sugar in hot water. Chill. Pour over fruit and let stand a few minutes. Drain the fruit and reserve the juice. Combine unbeaten egg whites, sugar, salt, lemon juice and fruit juice in the top of a double boiler. Place over boiling water and beat with a rotary beater until the mixture holds its shape, about 7 minutes. Gently fold in thoroughly drained raspberries. Chill in serving dishes. Yields about 6 servings.

Blueberry Muffins

- | | |
|----------------------------|------------------------------------|
| 1/3 c. shortening | 1 1/2 tsp. baking powder |
| 1/2 c. sugar | 1/2 c. milk |
| 1/4 tsp. salt | 1 c. fresh (or frozen) blueberries |
| 1 egg, well beaten | |
| 1 1/4 c. sifted cake flour | |

Cream shortening, sugar and salt. Add egg and blend thoroughly. Sift together cake flour and baking powder. Add alternately with milk, beating for just a few seconds after each addition. Stir in berries dusted with a little flour. (If using frozen berries, be sure they are well drained.)

Fill greased muffin tins 3/4 full. Bake at 400°F (moderately hot oven) for 20 to 25 minutes until tops are a golden brown.

Peach Dumplings

- | | |
|-------------------------------|-----------------------------------|
| 6 medium-sized ripe peaches | 1 1/4 c. sifted all-purpose flour |
| 1/4 c. finely chopped almonds | 4 tsp. baking powder |
| 1/4 c. sugar | 1/4 c. sugar |
| 1/2 tsp. almond extract | 1/3 c. shortening |
| 1/2 tsp. salt | 1/2 c. milk |
| | Blanched almonds |

Peel, halve and pit peaches. Combine chopped almonds, 1/4 c. sugar and almond extract. Put peach halves together with this filling.

Sift together into a bowl: flour, baking powder, salt and 1/4 c. sugar. Cut in shortening until very fine. Mix in enough milk to make a soft dough. Knead dough for 10 seconds on a lightly floured board or canvas. Roll dough into a rectangle

12" x 18" and cut in 6" squares. Place a stuffed peach on each square. Draw the corners up to meet at the top and seal edges. Brush dumplings with a little milk; sprinkle with granulated sugar and stick 3 or 4 blanched almonds into each dumpling. Arrange well apart on a greased cookie sheet. Bake at 425°F (hot oven) for 20 to 25 minutes. Serve warm with cream, whipped cream or custard sauce.

Apricot Crisp

- | | |
|----------------------------|---|
| 4 c. sliced apricots | 1/16 tsp. salt |
| 1/2 c. fruit sugar | 1 c. all-purpose flour |
| 1/3 c. butter or margarine | (or 1/2 c. flour plus 1/2 c. rolled oats) |
| 3/4 c. brown sugar | |

Wash apricots and slice. Add fruit sugar, mix lightly and place in a buttered baking dish. Cream shortening, add brown sugar and salt and cream well together. Blend in flour or mixture of flour and rolled oats and sprinkle evenly over fruit. Bake at 375°F until fruit is tender and top is a golden brown, about 30 minutes. Yields about 6 servings.

Dutch Fruit Cake

- | | |
|-----------------------------------|------------------|
| Fruit (see below) | 3/4 tsp. salt |
| 1 1/2 c. sifted all-purpose flour | 1/2 c. salad oil |
| 1 1/2 tsp. sugar | 3 T. cold milk |

STREUSEL TOPPING:

- | | |
|--------------|---------------|
| 3/4 c. sugar | 1/4 tsp. salt |
| 2 T. flour | 2 T. butter |

Choose one fruit from: 3 c. sliced rhubarb; 4 tart medium-sized apples, cut in eighths; 1 pint blueberries or raspberries; or 5 medium peaches, peeled and cut in half. Prepare fruit as suggested.

Mix and sift flour, sugar and salt for pastry into mixing bowl. Combine oil and milk in measuring cup. Mix with a fork until creamy, then pour all at once over flour. Mix with a fork until all flour is dampened. Turn pastry into an 8" square pan. Pat out dough with fingers to cover bottom of pan; push dough up 1" along sides. Arrange fruit over pastry.

Prepare Streusel topping by mixing sugar, flour and salt in a bowl. Cut in butter with a pastry blender or fork until mixture is crumbly. Sprinkle over fruit.

Bake at 425°F (hot oven) 40 minutes or until edges of pastry are browned. Yields 6 to 8 servings. V



Sliced berries nestle in whipped cream atop this Strawberry Tulip Dessert. Marshmallow tulips decorate the base of the berry-jewelled spring triumph.

[General Foods photo]

Home Freezer Hints



[Amana photo]
Fresh produce will soon claim space emptied after winter's freezer use.

FOR most of us, spring is the best time for extending the seasonal housecleaning to include the family food freezer. Crisp stalks of new asparagus will soon provide the first of the new crop of fruits and vegetables to be stored away for out-of-season enjoyment. Be ready to store newly filled containers.

About 12 hours before you plan to begin, turn the temperature control on the freezer to its coldest position. This is necessary in order to chill the food left in the freezer to the coldest possible degree. If this food is to be removed, wrap it in several thicknesses of newspaper or pack it tightly in heavy cartons. Blankets may be wrapped around the first packing as an extra precaution against thawing.

Follow carefully any specific cleaning instructions given in the manual supplied with your home freezer. Remember: Never use hot water or a sharp tool to remove ice from the freezer as you could damage the coils or liner. Instead, to hasten defrosting, use an electric fan to blow warm air into the freezer or set the fan inside the freezer to blow the cold air out. Should there be an odor in the freezer, wash the interior well with a solution of vinegar and water (about $\frac{1}{2}$ cup vinegar to 8 cups water). Rinse the surface with clear water and dry well.

Sort the remaining stock of frozen foods carefully. Bring your inventory up to date. This list should show when each food was frozen and which should be used as quickly as possible to avoid over-long storage. Plan to use fruits and vegetables frozen last year; their quality will not improve and the space they take will soon be needed. You may find bulky packages taking up more space than is warranted. One item which is not economical of space is packaged soup bones. Remove them now, place the bones in a large kettle of water and seasonings, and simmer several hours. Cool quickly, remove the meat from the bones and package it in freezer containers for use in meat pies, sandwiches, etc. Strain the stock and freeze it in ice cube trays. Remove the cubes, package in polyethylene bags and store in the freezer. These cubes will be handy for making quick soups and richer gravies during the summer months. A check of your stock on hand may show other items which, if they cannot be used now, can be readied for use and take less storage space, meanwhile.

Whether your home freezer is a new possession or a fixture of some years, you may benefit from the answers to some questions many freezer owners have raised. Many home-

makers are not too sure about "proper" wrapping of frozen baked goods. It's important, they know, because they hear it said so often.

Packaging in a moisture-vapor-proof material is essential for long term storage. Freezer wrappings and containers of any desired size and shape are available and are worth their cost. They protect the quality of the food they contain. They can prevent destructive drying, and changes in color, flavor and texture. They also guard against absorption of foreign flavors, and rancidity through oxidation. These are the reasons why makeshift packaging is undesirable for foods to be stored in the freezer for longer than 2 weeks. Waxed milk cartons, etc., are only satisfactory if a moisture-vapor-proof liner is used. Tight wrapping with proper freezer wrap is necessary to exclude as much air as possible from the package. The wrapping material will keep air from entering the package, but air trapped inside can also cause undesirable changes by oxidation.

Food which is to be freezer-stored for less than 2 weeks can be packaged without a moisture-vapor-proof wrap or seal. Any covered container is adequate for short-term storage. An ordinary waxed paper covering is sufficient for bread. Most baked goods may be stored in a light cardboard box if this is necessary to protect fragile edges.

YOUR own program of summer activity will determine the prepared foods most valuable to have in convenient freezer storage. Space is limited so plan for its best use, e.g. rolled pastry can be stored flat leaving pie pans in circulation and saving freezer space. The pastry will thaw enough to mold into or over the pan while the oven is heating.

In the preserving season to come, take care not to overload the freezing ability of your freezer. Where feasible chill foods and package before placing them in the freezer. Do not place more fresh foods in the freezer than recommended in the manufacturer's handbook. The figure suggested there is the maximum amount which can be quick frozen. Slow freezing is undesirable for most foods. Place freshly packaged foods against freezing surfaces for fastest freezing, moving them to a section of similar foods when frozen. Length of freezing time depends on the food and the size of package. A good rule is to leave fresh foods against the freezing surface overnight before moving.—G.L. V



Delightful Danish Pastry Stars

Made by a famous Danish pastry chef? Goodness, no! If you bake at home, you can create these dainty and delectable pastry treats right in your own cosy kitchen... they're *that* easy to make with Fleischmann's Active Dry Yeast! Bake a batch of these scrumptious Danish Pastry Stars tomorrow. They're delicious!



DANISH PASTRY STARS

Measure into bowl

$\frac{1}{2}$ cup lukewarm water

Stir in

1 teaspoon granulated sugar

Sprinkle with contents of

1 envelope Fleischmann's
Active Dry Yeast

Let stand 10 minutes, THEN stir well.

Meantime, sift together into bowl

$2\frac{3}{4}$ cups once-sifted all-
purpose flour

2 tablespoons granulated sugar
 $\frac{1}{2}$ teaspoon salt

Shred in medium shredder

$\frac{1}{2}$ pound chilled butter or
margarine

and stir into flour mixture.

Beat well

1 egg

and stir in dissolved yeast.

Make a well in flour mixture and add yeast mixture; combine thoroughly. Chill until firm, about 1 hour. Turn out dough on lightly-floured board or

canvas. Roll out dough to a 15 x 25-inch rectangle; cut into fifteen 5-inch squares. Spread each square thinly with thick raspberry jam.

Fold $\frac{1}{3}$ of square over, then over again.

Cut five slashes along one side of dough to within $\frac{1}{8}$ inch of other side. Form into a circle, separating at slashes to form a 6-point star. Place pastries on cookie sheets; chill about $\frac{1}{2}$ hour. Brush with slightly-beaten egg. Bake in a hot oven, 450°, until golden—7 to 10 minutes. When cold, spread stars, if desired, with following icing:

Combine 1 cup once-sifted icing sugar and $\frac{1}{8}$ teaspoon vanilla; mix in sufficient milk to make a stiff icing.

Yield—15 pastries.



**ALWAYS ACTIVE, FAST RISING
KEEPS FRESH FOR WEEKS
NEEDS NO REFRIGERATION**

Say...
did you know
that HOLLYHOCKS are
first cousins to the
WABASSO
sheets n' pillow slips
on your bed?

"It's a fact! The hollyhock and the cotton plant are botanical cousins! Says so right here in 'The Story of Cotton'! Funny thing, too, because just about everyone with a garden in Canada grows hollyhocks, while cotton grows in hot climates.

"Still, I have relatives all over the world, but being a WABASSO rabbit, my particular branch of the family thrives in a snowy climate.

"The WABASSO, you know, is as white as fresh snow. That's why those beautiful sheets of yours are called 'Wabasso' — it's the Trade Mark for pure white cotton.

"Rather wish I could change colour sometimes. It sure would be fun to have a fur coat in Mist Blue, Lemon Stick, Surf Green or Charm Pink — like WABASSO Pastel sheets!"



WABASSO
COTTON COMPANY LIMITED
Trois-Rivières, Quebec

*Mail this coupon to us in Montreal, for the illustrated booklet which tells (in easy to understand language) how cotton fabrics are made.

The Advertising Manager,
THE WABASSO COTTON COMPANY LIMITED, 2055 Peel Street, Montreal, P.Q.

Please send a free copy of 'The Story of Cotton' (in English ☐ or French ☐) to

NAME _____

ADDRESS _____

A Cornice Can Be Sewn

YESTERDAY'S homemakers, when their drapes were made, relied on a carpenter or a do-it-yourself husband to make the finishing touch for the window treatment—a cornice. Today, however, a cornice or valance need not be of heavy wooden construction. You can make one on your sewing machine!

Sewing experts recommend the sturdy new stiffened buckram as cornice material. This fabric is both washable and dry-cleanable, can be cut with scissors, and is easily stitched by a sewing machine. Supported by a

curtain rod running along the back, this fabric can be fashioned into a variety of handsome cornices.

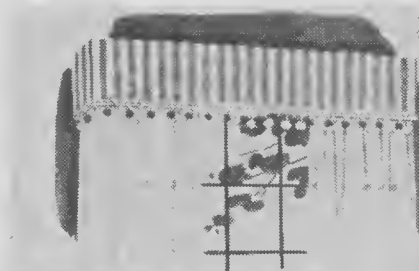
Cut stiffened buckram to the required width and length. Sew a strip of 2½" tape (along both tape edges) to length of buckram leaving tape ends and center open to accommodate the curtain rod. Then cover the buckram with fabric selected to harmonize with the drapery material. Channel the curtain rod through the tape on the back of the buckram cornice. If desired, the bottom edge of the cornice may be trimmed with fringe.



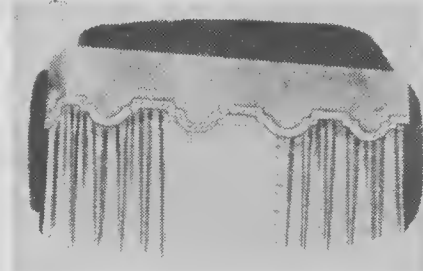
A wide strip of tape is sewn to the buckram after cutting and shaping.



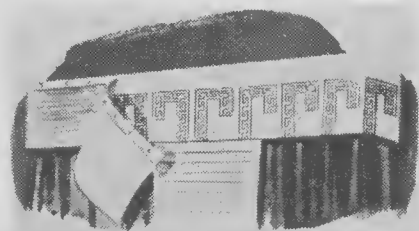
Sew drapery fabric to the buckram. Insert curtain rod to hang cornice.



Gay ball fringe is attractive decoration for a straight-edge cornice.



A cornice which is slightly stylized is designed for a formal living room.



Snap-on tape may be used with an existing valance for ease of handling.



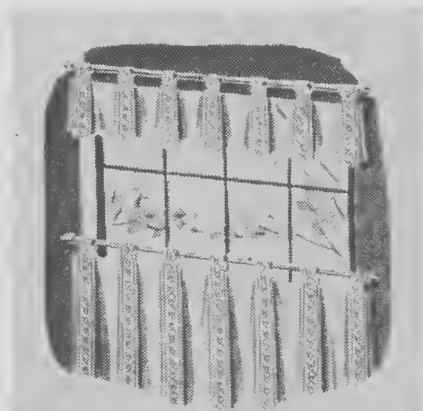
Shir-tapes aid gathering for swocked cornice and flatten for laundering.

The Window's a Picture

The treatment you give a window without a view can make it a picture of itself. One such treatment consists of box-pleated curtains trimmed and hung in such a way that the illusion of a cornice is produced.

To make box pleats, first determine the width of area the curtain is to cover. Add a hem allowance. Subtract this figure from the width of the proposed curtain material to find the pleat allowance. For example, if the fabric is 30" wider than the window it will cover, and you wish five pleats, you may allow 6" for each pleat. Stitch pellaon to the wrong side of the fabric and space pleats evenly. Stitch decorative flat braid over each box pleat, allowing extra braid for loops at the top. The curtain rod will run through these loops. Before stitching pleats, mark the exact position and

width. Fold and stitch pleats straight down to 1" below heading. Press flat and tack.



A valance effect can be created for decoration of windows with no view.

Old Rackety and I

by WILLIAM WITTER

OLD RACKETY and I started disking about the middle of April. Old Rackety is my 10-year-old tractor. It still works well, but makes plenty of noise.

I was sitting on the tractor, enjoying the spring day, watching the old cornstalks being cut up, and keeping an eye on the neighbors, when I heard a loud cry. It had to be loud to be heard above Old Rackety.

I looked around to see where the cry came from. Then I saw the little creature who was responsible for the shrill sounds. Yes, there she was by her nest, about 40 feet in from the fence.

I knew she was a meadow lark for she was a streaked, brownish bird with outer tail feathers of white, and she had a rather long, tapering bill which extended backward onto the forehead.

Old Rackety and I stopped dead still or we would have run right over her. But she kept standing there, straddling her nest, wings outspread, scolding Old Rackety in a tone poets never attribute to larks.

I couldn't help but admire the little thing, trying to save her roofed nest with its six pinkish white eggs all

speckled in brown and lavender. So Old Rackety and I make a big swath around her. As we traveled on I could see Mrs. Lark settling down to the business of hatching again.

THE next day I cross-disked the field. I forgot about Mrs. Lark. She must have built up faith in Old Rackety's kindness for she didn't warn us until we were almost on the nest. Then did she put up a torrent of abuses! Old Rackety and I almost lost our balance, we had to turn so quickly. We mashed an egg. I thought we'd never hear the end of it. Mrs. Lark acted like a wet hen for more than an hour.

When we plowed the field, we left a yard square untouched near Mrs. Lark's nest. She was watching us all through the plowing, I noticed. Ready to tell us off if need be, I suppose. I could see, too, the eggs hadn't hatched yet.

I'll be planting soybeans in a day or so now. It's going to look mighty silly to the neighbors, leaving a space 40 feet into the field bare for no apparent reason. It's going to be a nuisance planting around Mrs. Lark, too.

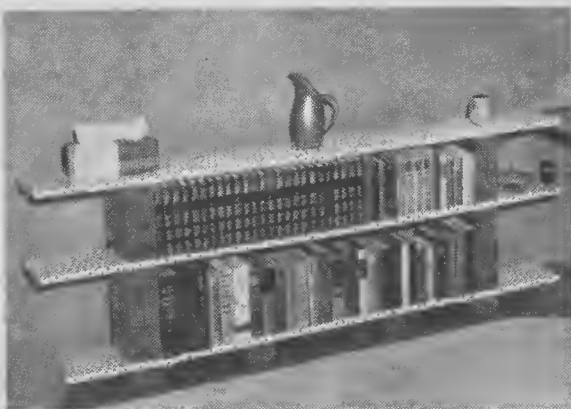
But Mrs. Lark and I have to do our share of looking out for the next generation. We understand each other, and that's what really matters. V

It's New

This lightweight sweeper picks up litter from carpets and removes dust and other matter from floors. Its treated surfaces destroy bacteria on contact. (E. R. Wagner Mfg. Company.) (H-13) V



A smock-gathering machine now being marketed provides a quick and easy method of making attractively smocked dresses in a minimum of time. (H. Peuler & Co.) (H-14) V



A new durable and washable covering with adhesive backing in a variety of colors and patterns has many uses. It covers the shelves of this easy-to-make bookcase. (Kimberley-Clark Corporation.) (H-15) V

For information about any item mentioned in this column, write to It's New, Home and Family, The Country Guide, 1760 Ellice Ave., Winnipeg 12, Man., giving the key number at the end of each item, as —(H-24).



THE TWO SECRETS OF SUCCESSFUL BAKING

One: good recipes, followed exactly. Two: good, dependable flour. It's as simple as that. The flour? Five Roses All Purpose Flour. Because it's highest quality, always dependable. The recipes? A book cherished in Canadian homes for over a generation — "The Five Roses Guide To Good Cooking". Five Roses Flour is at your grocer's in 5, 7, 10, 25, 50 and 100 lb. bags. Obtain the book by sending 50¢ to Five Roses, Box 6089, Montreal.

FIVE ROSES FLOUR

Canada's Most Respected Name In Baking



New Treatment For Old Walls

STRIKING new versions of wall coverings and accessories are certain to arouse the home-maker's interest. One of these is a non-woven fabric that has been combined with plastic. It has the wearing qualities of both and the colors and finish of wallpaper. Laboratory tests indicate it is almost stain proof so far as normal household stains are concerned.

Only very strong solvents seem to affect the covering. Most stains can be removed with soap and water; greases with facial tissue or a soft cloth; waxy marks such as lipstick and crayon by first flushing with a cloth dampened with naphtha followed by a soap and water washing.

This fabric does not crack or chip and when it is hung, folds and wrinkles disappear. Its elasticity and tensile strength permit it to "breathe" with the walls without wrinkling or tearing. Normal wall and ceiling cracks will not show through.

No special adhesives are required to apply it and manufacturers claim it may be removed from plaster and other walls simply by loosening the corners with a knife and pulling the entire strip away.

Rolls, in a variety of designs and solid tints, are 21' long, 20½" wide. They are pre-trimmed.

SCRUBBABLE wall canvas is another consideration. An extremely practical wall covering, its strong backing offers an interesting texture. It also protects walls against cracks. A baked-on surface makes it completely scrubbable and it won't tear. Fingermarks and grease spots wash off with soap and water.

Its advantages are similar to the vinyl product. It won't chip, crack or



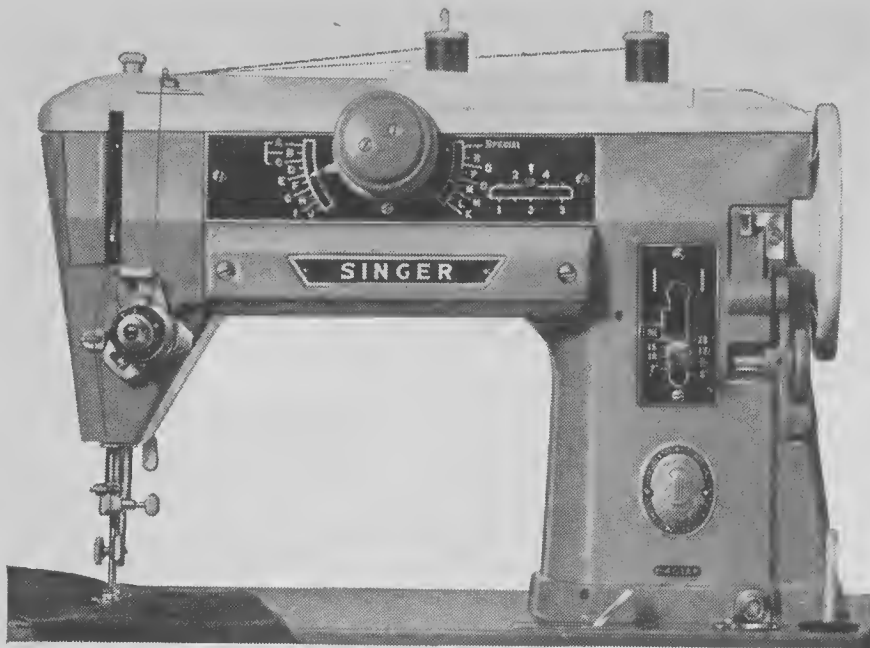
Some of today's wall coverings offer almost complete resistance to stains.

peel as paint sometimes does, and it hides plaster cracks. Manufacturers claim it actually strengthens the walls on which it is used. Single pre-trimmed rolls come in 18' lengths, in an easy-to-handle 24" width.

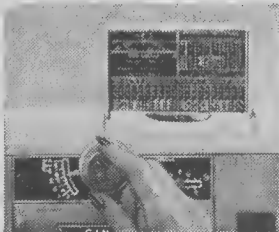
Wallpaper murals are also shown in three designs of varying sizes and background colors. They come in panels, each panel measuring 24" by 12' long, and are scaled to allow trimming for narrow walls. Background colors can also be purchased in standard wallpaper rolls.

NEW wall accessories can be conversation pieces. A magnolia tree plaque of mural proportions 45" wide by 31" tall is one of these. It comes in gray with pink blossoms and gold highlights, or all gold. It is suitable as a background to low furniture, perhaps a fireplace wall.

Other new accessories include an antique barometer in obelisk shape, a pair of scales of justice with containers usable as planters, a totem pole with symbols of the four seasons, and there are many types of decorative sconces from which to choose. V



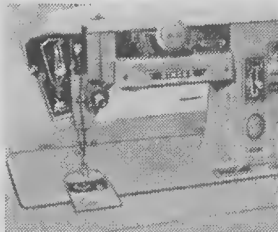
The SLANT-O-MATIC* greatest sewing machine ever built!



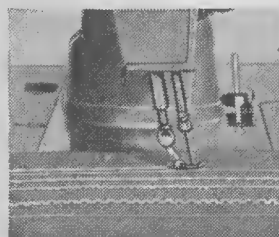
Eye-level stitch chart flips up; shows how to "tune" knob for the fancy stitch you want . . . world's easiest decorative sewing.



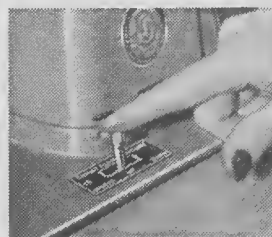
Gear motor drive eliminates stalling. And zigzag mechanism disengages during straight sewing for smoothest action ever.



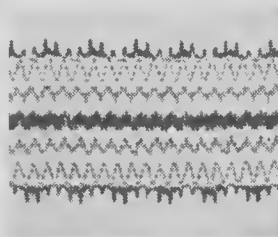
Double-easy threading. Only machine with handy "drop-in" bobbin in front of needle plus "snap-open" threading chart.



Exclusive Slant Needle angles forward so you see better, sew better. Has needle clamp for beautiful two-color stitching.



Fingertip control lifts throat plate to perfect level for mending and free-hand work. No feed to drop, no tools to use!



Exquisite fancy stitches; endless pattern combinations. Lets you do mending, button-sewing, appliqué and monogramming.

SINGER offers a machine for every purse and purpose. See the new SPARTAN* Portable, only \$69.50

SINGER SEWING CENTERS

Also headquarters for SINGER* Vacuum Cleaners

*A Trademark of THE SINGER MANUFACTURING CO.



MAIL TO SINGER SEWING MACHINE COMPANY
Dept. C.G. 59, at address nearest you:

590 Main Street, Winnipeg, Man.
200 South Service Road, Oakville, Ont.
126-A Sparks Street, Ottawa, Ont.

Please send me, FREE of charge, the SINGER
Catalogue illustrating new models:

NAME.....

ADDRESS.....

CITY.....PROV.....

Clip and Save Sewing Hints

Side Seam Pockets



A

A. Baste garment seams and stitch to markings for pocket. Press open.



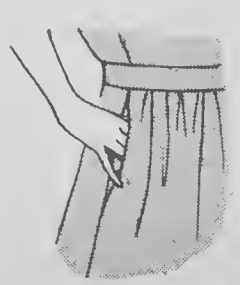
B

B. Stitch two pocket sections together to marking as shown.



C

C. Stitch pocket to open edges of the garment. Turn pockets toward the front of garment. Baste upper edge.



D

D. Finish pocket.

V

Vacation Wise



No. 8612—Tailored from terry toweling, this overblouse is a wear-with-anything vacation wardrobe basic. Sleeves may be short or omitted. Long tapered pants, Bermuda shorts and short shorts are included in the package. Junior sizes 11, 13, 15; Teen sizes 10, 12, 14, 16. Price 50 cents.



No. 8620—It's terry again in a notched-to-match pull-over blouse with pixie shorts. Pattern also includes cuffed shorts with button trim, cuffed pedal pushers and variations of the in-or-out shirt. Girls' sizes 7, 8, 10, 12, 14. Price 35 cents.

No. 8890—Quick 'n easy toddlers' playclothes are romper-styled for boys and girls. Pattern also offers two sunsuits, one with bib, one with suspenders only. All have inside leg seam closing for quick changes. Sizes ½, 1, 2, 3. Price 35 cents.



No. 5775—Designed for active and leisure hours, this two-piece plaid set is best in a care-free wash-and-wear fabric. The shirt features two pockets, elastic-topped shorts have one at back. Boys' sizes 2, 4, 6, 8, 10, 12; price 35 cents. Also available in Men's sizes S, M, L, XL, pattern number 8812; price 50 cents.



No. 8991—Nautical trim adds a gay note to this terry sunsuit. Form cap sleeves by finishing at sleeve seams. Girls' and boys' sizes 2, 4, 6, 8, 10, 12. Price 35 cents.



The Country Guide Pattern Department

1760 Ellice Ave.,
Winnipeg 12, Man.

528 Evans Ave.,
Toronto 14, Ont.

Please send Butterick

Pattern No. _____ Size _____ Price _____

Pattern No. _____ Size _____ Price _____

To _____

Chevy's got it!

Fashion-crafted interiors



*STYLE AND ELEGANCE NEVER
BEFORE SEEN IN THE
LOW-PRICED CLASS*

Open the door of any Chevrolet and you'll find an exciting new world of low-priced luxury. Captivating color-keyed fabrics and soft vinyls blend to invite you in. And there's room in Chevy to stretch out and enjoy the elegance. Do so very soon, at your Chevrolet dealer's.



**GO CHEVROLET-
FOR EXTRA VALUE!**

F

No Douche Protects Like Zonitors — Women Find!

**Gynecologist Reports On New, Easy—More Positive Method
Of Feminine Hygiene—Provides Continuous Protection**

New York, N. Y. (Special) At last, science has developed a method of feminine hygiene a woman can use with confidence because it gives the germicidal protection of an antiseptic douche; but does it immediately and for a prolonged period—as no douche can. So quick and easy, this new method depends on remarkable vaginal suppositories, called Zonitors.

Once inserted, Zonitors dissolve gradually, coating tissues with a protective film which lasts for hours—and are ready to work instantly. Zonitors guard against—destroy odors completely, too—helping to maintain a high degree of comfort, convenience, safety and personal daintiness not possible with

ordinary douches.

Zonitors' amazing effectiveness is due to one of the most potent antiseptic principles ever developed—the discovery of a prominent surgeon and chemist.

Doctor's Discovery — Hospital Proved!

Zonitors were thoroughly tested in a large Eastern hospital. The supervising gynecologist pronounced them unusually effective, yet safe and non-irritating. They are now available without prescription in most local drugstores.

Zonitors are greaseless and stainless—cost little for 12 dainty, snow white vaginal suppositories, individually packed to carry conveniently in a purse.

For Trial Supply, Send 10c and name and address to:
CHEMWAY CANADA, ST. THERESE, P.Q., DEPT. C.G.

Improving Your Home Movies

by HENRY H. GRAHAM

HOME movies can be either a joy or disappointment, depending on the skill of the person responsible for them.

In order to take good sequences it is necessary for one to familiarize himself with photographic terms such as lens openings, backgrounds, and angles. I know a man who has shot movies for years, yet he doesn't even know the meaning of such terms as F/1.9, F/6.3 and F/11. The result, more often than not, is that his pictures are not properly exposed. Only rarely does he happen to hit it lucky and get something worthwhile.

By studying an instruction book, it is quite easy to understand lens apertures. A knowledge of this is imperative if one is to get satisfactory results.

Many shooters show people at too great a distance. When the object is to display a recognizable likeness of family and friends, the camera should be close to the subject—not more than 8 or 10 feet distant.

Another common mistake is to make sequences too short. The photographer should count to at least 15 while pressing the button, and before switching to another subject. Some reels change subjects so quickly that the audience scarcely identifies a person before something new is flashed on the screen.

THE majority of home movie enthusiasts shoot in color. When used wisely color film is superb. But the exposure and lighting must be right. This emulsion has far less latitude than black and white, which means that the exposure has to be almost exactly right for good results. A light meter is most helpful in determining correct exposure.

The best color shots are made with the sun directly behind the camera. This is known as flat lighting, and, in color, the various hues provide adequate contrast. If the colors are to appear real and natural, objects must be uniformly illuminated, with no dark shadow patches. Then they have sparkle and life. Color movies that are too dark, because of underexposure, or

that are pale and washed out because of overexposure, are not enjoyable. For the best color, movies should never be taken in the very early morning or the late afternoon.

Camera shake spoils many a home movie. It is "jiggly" and hard on the eyes. When possible, the camera should be placed on a tripod or other object to assure extreme steadiness.

Another difficulty is improper focus. For closeups the camera must be set accurately for distance. This is true even though the lens is of extremely short focal length and thus has a great range of sharpness. The larger the lens opening used, the more accurate the focusing must be. When shooting at an aperture of say, F/1.9, it is much more important to focus accurately than when F/11 is used. The smaller the lens opening the greater the field of sharpness. And the smaller the lens aperture number, the bigger the opening and the more light the film receives while pictures are taken.

MANY home movie shooters waste too much film on pure scenery in which nothing moves at all. A certain amount of this is all right, but one should not lose sight of the fact that this is a movie camera, equipped to record action. Even in scenics it is a good idea to have people doing something—moving around, talking animatedly, or at least indulging in action of some sort. This gives life to a sequence and adds to its interest.

Some people get a movie camera and become disgusted if their first results are not the best. They may be so discouraged that they give up the hobby, blaming the camera and telling friends that home movies are just not what they are cracked up to be. The truth is that home movies are fine when the photographer understands his business, and when he is willing to take some time to understand the subject. It is very important for one to know his camera thoroughly.

Photography is a science. It must be studied. But there is no reason why any intelligent person cannot shoot good home movies, if he will give some thought to his hobby.



Home movies capture so much. They can record a child's growth, new family skills and hobbies, vacation scenes and various farm and home activities.

Country Boy and Girl

THIS month we have a story for you written by Pat Price, Alexander, Man. Pat, who is 9 years old, lives on a farm and she likes to write stories about farm boys and girls and animals. Because we would like to print stories written by other country girls and boys 12 years and under, we are having a story contest. Prizes will be given for the winning ones of 300 words or less. Remember, the best stories are those you write about the things you know. Send them to Country Boy and Girl, The Country Guide, 1760 Ellice Avenue., Winnipeg 12, Man., by June 15.—The Editors.

A Pony for Rosa

by PAT PRICE

LITTLE Rosa Green ran into the house wailing, "He did, he did." Her mother, who was washing dishes, looked up.

"Rosa, what's the matter?" she asked.

"I told Shelly White what Daddy said about getting me a pony and she said he just said that," wailed Rosa. "She said he didn't mean it at all."

"Of course he meant it," comforted her mother. "You will have one soon."

"I told her he would be black, and I would call him Lucky, and she just laughed," sobbed Rosa.

"You'll soon have your pony," said her mother. "Now you run along and feed your calf."

Rosa ran into the barn and hugged Pinkie, her calf.

"I'll soon get my pony," she said. "Then you'll have a friend."

She dumped some oats into Pinkie's box, then, when he was finished that, she gave him his hay and milk. Then she went back to the house.

That night at supper, Rosa said to her father, "Daddy, when will I get my pony?"

"Tomorrow afternoon," Mr. Green said calmly.

"Tomorrow afternoon, oh boy!" cried Rosa.

The next day Mr. Green came home with the pony.

"Oh, Daddy, he's all that I thought he was!" Rosa cried.

She rode Lucky to Shelly's house, and showed him to her friend.

"I told you I'd get him," she said, smiling. ✓



At the Rodeo

Down at the rodeo,
With firm-handed hold,
I'll lasso the buffalo
Brown-coated and bold;
Wild steers and broncos
Pawing and snorting,
Kicking up dust clouds
In clumsy cavorting.
Then when the wild beasts
Have gone prancing by . . .
I'll twirl my lasso
And make it dance high.

—EFFIE BUTLER.

Match-Ups

Listed below in the right hand column are five names of things which are usually said in connection with names we find in the Bible. On the left is a list of the biblical names. Can you match them up?

- | | |
|--------------|-----------|
| 1. Gabriel's | a. hay |
| 2. Adam's | b. ark |
| 3. Noah's | c. horn |
| 4. Timothy | d. apple |
| 5. Jacob's | e. ladder |

—Evelyn Witter.

(Answers to puzzles on page 72)

Things to Do

I must get up early,
For there's so much to do:
I must feed my dolly,
And wash her dresses, too.

I must comb the puppy,
And feed the birdie seeds.
Then I'll help my daddy
By pulling garden weeds.

Every day I'm busy—
It makes the day-time fly.
Helping makes me happy;
It's fun—why don't you try?

—VIRGINIA RANDALL.

Puzzlers

Each of the 6-letter words described in this list have two T's right in the middle. See if you can complete the words according to the definitions.

1. —tt— Another word for small.
2. —tt— A vessel for cooking.
3. —tt— To tell tales.
4. —tt— Someone who takes care of another's baby.
5. —tt— A kind of thread or cloth.
6. —tt— One who uses a bat, as in baseball.—Evelyn Witter.

3 Little Words

For you to play this little game
Let's find three words that SOUND the same,

But each one means a different thing!
The first is ruling as a King,
The second "guides or leads or steers,"
The third one "drops down soft as tears."—Edna Dessar Wells.



pick your
playground
then . . .

Go GREYHOUND!

How you travel can add as much enjoyment to your holiday as where you travel! Once you've picked your playground — plan on a relaxing trip all the way with Greyhound! By Greyhound you see more — save more — get more comfort per mile! Ask your agent about the convenient schedules, heart-of-town arrivals and departures, low bargain fares.

from \ to	LOS ANGELES	SAN FRANCISCO	VANCOUVER	TORONTO
WINNIPEG	\$102.60	\$94.90	*\$41.20	*\$35.90
SASKATOON	\$ 98.05	\$90.20	*\$34.50	*\$49.35
REGINA	\$ 98.05	\$90.20	*\$36.15	*\$43.95
EDMONTON	\$ 94.35	\$84.45	*\$24.60	*\$58.20
CALGARY	\$ 82.45	\$71.40	*\$20.80	*\$58.20
LETHBRIDGE	\$ 74.55	\$68.50	*\$22.70	*\$58.20
SWIFT CURRENT	\$ 91.20	\$85.00	*\$31.30	*\$52.45
YORKTON	\$ 98.05	\$90.20	*\$41.15	*\$49.35



* Get full information and special sales dates from your nearest Greyhound Agent. Ask him, too, about Greyhound's Vacation Planning Service.

GREYHOUND

THE BIG BUY IN HOLIDAY TRAVEL

Make \$25.00 - \$50.00 - \$75.00 Every Month In Your Spare Time

You can earn plenty of extra money quickly by acting as our representative and securing new and renewal subscriptions to all leading magazines. Very substantial commission paid, no experience needed. We show you how to begin right away to earn extra dollars.

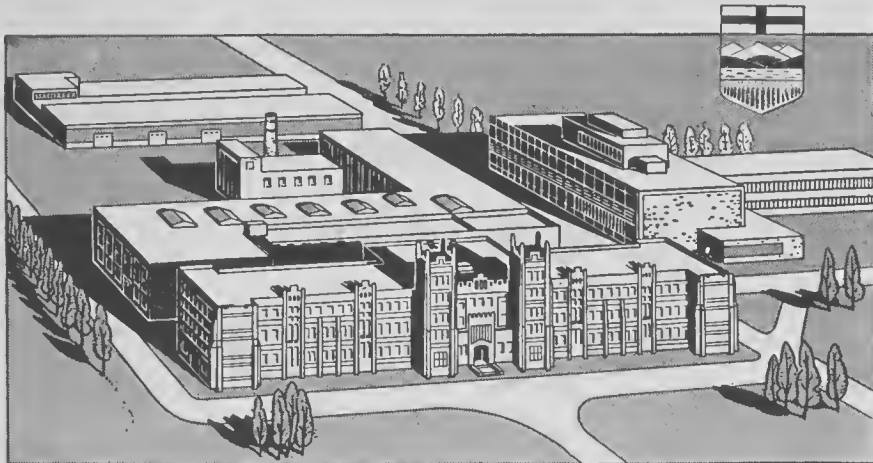
Write today for free details:
PUBLISHERS' INSTITUTE

660 Portage Ave.

Winnipeg 10, Manitoba

The Provincial Institute Of Technology and Art

TECHNICAL TRAINING



The purpose of the Provincial Institute of Technology and Art is to train men and women for semi-professional positions as assistant engineers and technicians in industry. These positions require specialized knowledge and skills in specific fields. Courses are terminal and provide the necessary theoretical knowledge and skills for students to qualify ultimately for responsible, supervisory positions.



Prepare **NOW** for a Career
Apply for 1959-60 Term

TUITION FEES ARE AS LOW AS \$51.00 PER YEAR

• 2-YEAR COURSES

Agricultural Mechanics (Starts Oct. 26)
Aircraft Maintenance Technology (Starts Sept. 14)
Architectural Technology (Starts Sept. 28)
Automotive Service Technology (Starts Sept. 28)
Construction Technology (Starts Sept. 28)
Clothing and Design (Starts Sept. 28)
Drafting Technology (Starts Sept. 28)
Industrial Electrical Technology (Starts Sept. 28)
Industrial Laboratory Technology (Starts Sept. 28)
Land Surveying Technology (Starts Sept. 28)
Mechanical Technology (Starts Sept. 28)
Petroleum Technology (Starts Sept. 28)
Radio and Electronic Technology (Starts Sept. 28)

• 3-WEEK COURSES

Welding (Oxy-Acetylene or Electric) Starts Sept. 28, Oct. 19, Nov. 9, etc.)

• 10-WEEK COURSES

Tractors (Starts Oct. 26)

• CORRESPONDENCE COURSES

Power Plant Engineering
Practical Mathematics

• 1-YEAR COURSES

Commercial Radio Operating (Starts Sept. 28)
Diesel Mechanics (Starts Oct. 26)
Food Service Management (Starts Sept. 28)
Refrigeration and Appliance Servicing (Starts Sept. 28)

• 3-YEAR COURSES

Aeronautical Engineering (Starts Sept. 28)
Art, Applied and General Crafts (Starts Sept. 28)
Art, Pottery and Ceramics, Industrial Design (Starts Sept. 28)

• 4-YEAR COURSES

Art, Commercial, Advanced (Starts Sept. 28)
Art, Fine, Advanced (Starts Sept. 28)

• SPECIAL SHORT COURSES

Dressmaking, Elementary (Starts Oct. 13)
Dressmaking, Advanced (Starts Oct. 13)
Tailoring, Ladies and Men (Starts Oct. 13)
Slip Covers, Drapes and Upholstery (Starts Oct. 13)

THE PROVINCIAL INSTITUTE OF TECHNOLOGY AND ART

UNDER THE DIRECTION OF THE DEPT. OF EDUCATION — GOVERNMENT OF THE PROVINCE OF ALBERTA
HON. A. O. AALBORG, MINISTER OF EDUCATION — E. W. WOOD, M.E.I.C., M.I. MAR. E., PRINCIPAL

**CLIP
AND
MAIL**

TO DEPT.— CG
Provincial Institute of Technology & Art,
Calgary, Alberta.

Please send me your FREE booklet outlining complete details of all courses.
PLEASE PRINT NAME IN BLOCK LETTERS.

NAME _____ AGE _____
ADDRESS _____
CITY _____ HIGHEST SCHOOL GRADE _____

Young People

On the farm and at home

Be Cool and Careful



[Luoma photo]

There can be hours of carefree swimming if water safety rules are followed.

BATHING suits and baseball bats have replaced the curling brooms and skates of winter. With a return to summer, you will be looking expectantly to Canada's many lakes and rivers, even to the more lowly ponds and creeks, for some of your summer recreation.

It's certain that wherever there's a good swimming place there will be the sights and sounds of water pleasure. If one has already been lured by a warm sunny day to the nearest stretch of water, then it's time to think of water safety.

Every year hundreds of people drown for the simple reason that they did not take time to learn the basic rules of water safety. The rules are simple and their use will do much to prevent the high toll of life by drowning.



When you have learned to swim observe simple precautions to minimize the hazards.

First of all, be careful where you swim. Because there is an ever present danger from hidden rocks, tree roots and branches, it is most unwise to swim or dive into unfamiliar water. The first sight of an inviting stretch of water provokes the temptation to plunge in; water safety demands that a search first be made to determine whether or not there are any underwater hazards.

Nor is it wise to swim alone. A companion is invaluable if anything unforeseen occurs.

WATER safety's second rule is: Keep out of the water immediately after eating. Wait the recommended two hours after a meal to reduce the possibility of cramps.

After heavy exertion or overheating, it is wise to rest and cool off for a brief period before heading into the water. A sudden plunge into cold water at such times may cause a black-out or the painful, disabling cramps that have been known to bring tragedy in their wake.

It isn't smart to accept dares; learn how far you can swim and then stay within your limit. If there is a com-

Answers to puzzles on page 71

Match-Ups:

- Gabriel's horn
- Adam's apple
- Noah's ark
- Timothy hay
- Jacob's ladder

Puzzlers:

- Little
- Kettle
- Tattle
- Sitter
- Cotton
- Batter

Three Little Words:

Reigns Reins Rains

The first and most important rule of water safety is: Learn to swim. It's fun and one of the best known forms of exercise. You may never win a prize for long distance swimming, or for your swimming form, but your knowledge of swimming prepares you to cope with some of the emergencies you may meet. Even wading can bring disaster if there is an unexpected "drop-off."

Continued from page 15

FARM POLICY

Marketing

Another level of policy which has not the undesirable effect of further contributing to production is in the area of marketing. Both federal and provincial governments can go much further in the provision of organizational, educational, and research services for co-operatives.

They could also assist by considerably extending the financial guarantees provided to co-operatives. Specifically, and this would seem natural in view of the Federal government's disapproval of vertical integration, it could guarantee credit to co-operatives which might be interested in and able to become contractors in vertical integration arrangements.

Consideration should also be given to further exempting co-operatives from the implications of anti-combine legislation. This would assist farmers toward equality with organized labor and corporate industry in being able to employ "market control" devices.

In the hope that the financial position of the farmer could be improved



It's great weather for siestas and CP Weatherproof House Paint

You can count on CP Weatherproof house paint to resist the sun's burning rays without checking or blisters. Gives years of protection from rain, sleet and snow, too. You'll want CP Weatherproof paint to beautify your house — in your choice of 22 colors, white and black.

THE CANADA PAINT

COMPANY LIMITED

MONTREAL • TORONTO • WINNIPEG • CALGARY • VANCOUVER • HALIFAX



RACE TOWARD SHORE.

the instep. Foot cramps return more quickly than any other and it is well to make for the shore without delay.

The currents that carry swimmers away from shore are another source of danger. Don't fight a current but swim across it and gradually make your way to shore. Drift with an extremely heavy current and call for help.

Because it's safer swimming when lifeguards or instructors keep watch, why not take advantage of the training available through water safety programs offered by local and provincial branches of the Canadian Red Cross? V

Sitting Made Easier

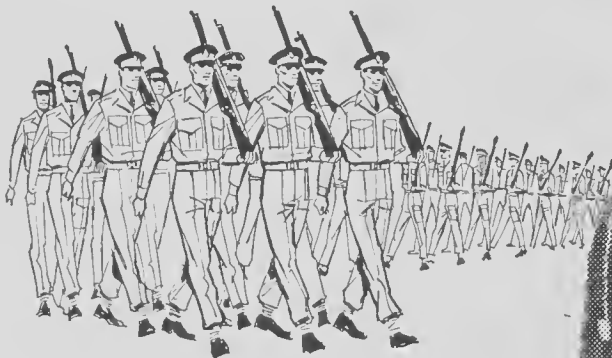
BABY-SITTING is easier if the toddler helps entertain himself, which he will do if he has a toy he has never seen before.

You can provide him with such entertainment if you have a new toy with you when you arrive on the job. This toy can be one you've made out of a round oatmeal carton.

To make a toddler's pull toy, punch a hole in the center of the lid and bottom of the carton. Thread a string through the bottom hole and knot it. Loosely loop the string around the outside of the box, and knot the other end inside the hole in the lid. Toss a handful of bells into the box, and glue on the lid. Fasten a venetian blind cord knob (from dime store) to a 2-foot length of cord. Tie the other end of this cord in the middle of the first looped string.

Most very young children will spend many happy hours pulling this tinkling toy after them.—E.W. V

New Opportunities for young men... as OFFICERS in the Canadian Army



Would you like to be an Officer in the Regular Army, and enjoy the prestige of the Queen's Commission? You can have all the advantages... travel, adventure, a well paid job with a future, by enrolling in the Officer Candidate Program.

Applicants who meet Army enrolment standards will qualify for a Short Service Commission on the successful completion of a 36 weeks training course. This may be converted to a permanent commission... a career with a purpose.

Applications are being accepted now for courses commencing late in September. These will be processed in the order received, and recruiting will continue only until quotas are filled.

If you are single, aged 18 to 23, and have at least Junior Matriculation or equivalent education, get full details, without obligation, from the local Army Recruiting Station listed in your 'phone book, or by mailing this coupon to:

D. MANNING (M2A)
ARMY HEADQUARTERS
OTTAWA, ONTARIO

Name _____ Age _____
Address _____ Telephone _____
City/Town _____ Province _____
Last school grade successfully completed _____

CGM

E59-5



CHOOSE A CAREER WITH A PURPOSE

GET

All-weather protection

and

Fireproof construction

with

PEDLAR

RAINBOW

RIB ROOFING



Another
PEDLAR
Product



For protection in all kinds of weather, Pedlar Rainbow Rib Roofing on your barn is the safest, easiest, most economical investment you can make. Extra wide 32" sheets save you lumber costs, save you valuable time and labour. Each sheet contains five main vertical ribs for added strength; and four sturdy strengthening bars eliminate end lap nailing. For your next roofing job specify Rainbow Rib Roofing, in galvanized steel or "Kingstrong" Aluminum.

Write for folder and prices

THE PEDLAR PEOPLE LIMITED

VANCOUVER - 860 BEACH AVE.
EDMONTON - 9528—58th AVE.
CALGARY - 1301—10th AVE. W.
WINNIPEG - 599 ERIN ST.



R-129

Crop Year	Production	Beginning Inventory	Total Supply	Exports Wheat and Flour	Domestic Disappearance	Ending Inventory
Millions of bushels						
1951-52	554	189	743	356	170	217
1952-53	702	217	919	386	150	383
1953-54	634	383	1,018	255	144	619
1954-55	332	619	951	252	162	537
1955-56	519	537	1,056	309	167	580
1956-57	573	580	1,153	262	161	730
1957-58	371	730	1,100	316	170	615
1958-59	369	615	984	300*	170*	514*

*Estimated.

on the marketing side, the powers of producer boards organized under provincial legislation might be extended by the provinces and by the Canadian Parliament. Further, encouragement might be given to co-operation by producer boards across provincial boundaries.

Wheat Policy

The gravity of the world wheat situation is measured by the fact that the wheat exporting countries have twice as much wheat available for export as importing countries are expected to take on a commercial basis over the present crop year.

The 1958 Canadian wheat crop is estimated at 369 million bushels. This was grown on 20.9 million acres. It is particularly significant that Canadian farmers have made a substantial acreage reduction in the face of the present surplus situation. In the 1947-49 period, they harvested 25.2 million acres. The all-time high Canadian acreage was 28.7 million acres reached in 1940.

The carry-over of Canadian wheat at the beginning of the crop year was 615 million bushels compared to 730 million a year earlier. This improvement was due both to the moderate size of the 1957 crop and to fairly large exports. In the 1957-58 crop year these were 316 million bushels including wheat and flour, and were up from 262 million in the previous crop year. Recent trends in production, supply and disposition are presented in the table above.

This improvement in the Canadian carry-over position contrasted sharply with both the American and world situations. This bettering in the Canadian position is expected to continue over the present crop year, the estimated 1959 carry-over being just over 500 million bushels.

Increased world supplies will make competition decidedly tougher for Canada. Russia is in a position to export up to 200 million bushels this year. If she succeeds it would likely be largely at the expense of Canada and the United States.

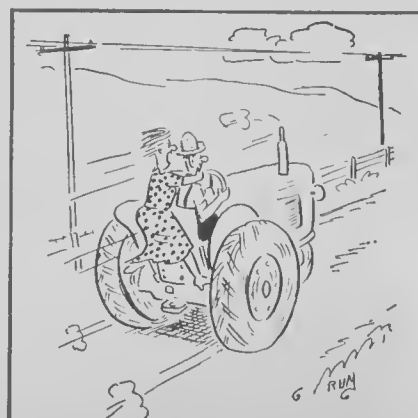
A number of discouraging circumstances confront the Canadian wheat industry over the next 10 to 20 years. Among these are: (1) Imports to Europe are expanding even more slowly than the slow rate of population growth. (This is largely due to agricultural protectionisms); (2) There is uncertainty about the role of Russia, the Balkans, France and even Sweden as exporters; and (3) There is a lack of any indication that the United States will moderate her subsidized production and dumping.

The only hopeful signs are in the possibility of expanded exports to the Orient; and that the prospective

growth of the Canadian economy will be fast enough to encourage a further shift from wheat to other crops in areas where this is physically possible. In any event, wheat as a national problem will be relatively small in the context of national economy, which will likely expand by 50 per cent in less than 20 years.

The Canadian Wheat Board Act which provides for and has been used as an instrument in making deficiency payments in the past should be used in this way again. At the same time we should immediately start on a "crash" research program. Canada now has almost no research on the marketing of our most important product. The problems are extremely difficult and there is no promise that the results of such research would lead more than a few steps toward a solution. However, there is always an outside chance that it would. But highly useful results could be assured on the matter of informing the Canadian Government and the Canadian people about the nature of the problem. Thus this country would be placed in a position to provide positive and constructive leadership at inter-government and international levels. Considering our present knowledge, the Canadian Wheat Board program is a very good one. But no one would say it is the best that could be contrived on the basis of new knowledge.

The proposed research requires focusing, first, on the situation over the next 5 years, and secondly, on a date in the 1970-75 period. The farm industry is sufficiently dynamic that short-run adjustments can be made. We should find the best kinds of adjustment. In the long run *adjustments will be made*. But they should be guided by policies which express the needs of grain farmers and of the economy of the country. It is not asking too much that we attempt to define these needs.



"Fred, you've got to have the car fixed before we go to town again!"

Continued from page 16

RUSSIAN WILD RYEGRASS

RUSSIAN wild rye grass is also recommended in the brown and dark brown soil zones for farmyards and lawns which cannot be watered. For this purpose the grass should be sown with a drill at the rate of 20 to 30 pounds per acre on a well-prepared seedbed to provide a quick ground cover.

Recent publicity on this grass has emphasized the possibility of the grower becoming a millionaire overnight by merely planting Russian wild rye grass for seed production. The possibility of such a miracle happening is becoming less and less likely as more and more people go into seed production. It is true that, up to the present, some growers have obtained high financial returns from growing seed of this grass, but many have failed to even get a stand. The price of Russian wild rye grass seed, as for many commodities, depends upon the law of supply and demand. The supply has been limited and the demand high, resulting in a high price. However, there is an indication this year that the supply is starting to catch up to the demand and growers are receiving from 5 to 20 cents less per pound than in previous years.

The time will probably come in the not too distant future when seed growers of this grass will be using it for fall and early winter pasture as well as for seed. The farmer will sow it in rows 3 feet apart, take a seed crop off in July, and use the field for fall and winter pasture. The amount or price of seed will then be incidental, because his main require-

ment will be good fall and winter pasture. Anyone growing this grass for seed should seriously consider using the aftermath for fall grazing. An experiment at Swift Current suggests that fields of Russian wild rye grass used to produce seed can be grazed in the fall without damage to the following seed crop.

It has been established that Russian wild rye grass, when grown for seed, must be sown in rows spaced 3 feet apart and given yearly applications of 33.5-0-0 fertilizer at the rate of 150 pounds per acre. Six-year average seed yields at Swift Current for this grass in rows 1 foot apart were 26 pounds per acre, while that in rows 3 feet apart yielded 113 pounds per acre. Similarly, an application of 125 pounds per acre of 33.5-0-0 on Russian wild rye grass in 3-foot rows gave a yield of 255 pounds of seed per acre, an increase of 142 pounds, worth approximately \$80 per acre after the cost of fertilizer was deducted (based on a seed price of 70 cents per pound and fertilizer cost of 6 cents per pound). Recent developments indicate that the best time to apply fertilizer is immediately after seed harvest. Application at this time gives approximately twice the yield as when fertilizer is applied at any other time of year.

A study made during the summer of 1958 suggests that Russian wild rye grass should be swathed and picked up rather than straight combined when harvested for seed. With

straight combining, the seed must be left until the dough is very firm or severe reductions in germination will occur. The period between this stage and excessive shattering was 1 day, in 1958, while material could be swathed up to 4 to 5 days earlier with no reduction in germination or yield.

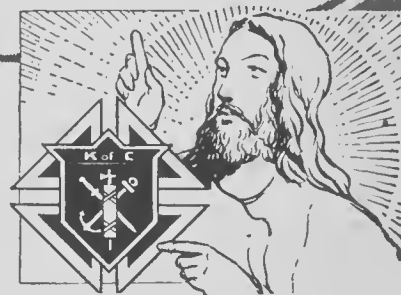
Russian wild rye grass is one of the grasses which is being improved by breeding at Swift Current. Improvements are being sought in obtaining higher seed and dry matter yields, and more reliable seed producing strains. Considerable progress has been made in the latter direction and it is hoped that a new variety will be

forthcoming from the present material.

In conclusion, Russian wild rye grass is an especially useful pasture grass, and it is hoped that more and more farmers and ranchers will realize its value and utilize it for that purpose. The seed grower who is in business on a permanent basis should also realize that this grass will not come into more general pasture usage unless the price comes down to perhaps one-half to two-thirds of what it is at present.

Further information on Russian wild rye grass may be obtained by writing to your nearest Experimental Farm for publication 991. V

WHO ARE THESE MILLION MEN THEY CALL "KNIGHTS"?



Whether you are a Catholic or not, you should know the truth about the Knights of Columbus.

Is it, as sometimes rumored, a secret society with designs against our government? Do its members really take an oath to destroy non-Catholic political power?

If such rumors were true, the Knights of Columbus would not deserve the friendship and trust of non-Catholic citizens, which it invites and merits. Actually there is no more thoroughly patriotic organization than this fraternal order of Catholic men.

It is composed of plumbers and lawyers, farmers and doctors, business men and scientists—of Catholic men at every level of the social and economic scale. Some are rabidly partisan on political and public questions. They "choose up sides" with all the freedom and enthusiasm of any other citizens.

The Knights of Columbus was formed in 1882, by a small group of the men of St. Mary's Church, New Haven, Connecticut. They had met, at the invitation of Father Michael J. McGivney, not to form a national fraternal society, but to "render mutual aid to the members of the parish and their families."

In the years that since have ensued, the Knights of Columbus has grown into a fraternal order of more than 1,000,000 members, spread over the United States, Canada and other countries of the Western World. But its purpose of "mutual aid"...and its principles of charity, unity, fraternity and patriotism...remain unchanged after more than 70 years.

Millions of dollars have been spent by the order for the relief of victims of fire, flood and famine...for the support of Christian youth work...aid to Christian education. In both world wars, the Knights performed a service of ministering to the spiritual

welfare and comfort of the armed forces regardless of creed, that brought sincerest thanks from a grateful nation.

Nearly one out of every six Knights served his country in World War II, and many laid down their lives.

Despite these and many other signal demonstrations of its principles of charity, unity, fraternity and patriotism, some people have the most absurd beliefs and suspicions about the Knights of Columbus, just as they do about the Catholic Church. Even today, misinformed people give publicity at times to a false alleged Knights of Columbus oath which has been proved to be fraudulent, and which scores of others have been forced publicly to admit is untrue.

If you wish, we shall send you free, in a plain wrapper, an interesting pamphlet about this international society. And nobody will call on you. Write for Pamphlet No. CY-9.

FREE

MAIL COUPON TODAY

SUPREME COUNCIL
KNIGHTS OF COLUMBUS
RELIGIOUS INFORMATION BUREAU
582 Sherbourne St., Toronto 5, Ont., Canada
Please send me Free Pamphlet entitled: "These Men They Call 'Knights'" CY-9

NAME _____

ADDRESS _____

CITY _____ PROV. _____

SUPREME COUNCIL

KNIGHTS OF COLUMBUS
RELIGIOUS INFORMATION BUREAU

582 SHERBOURNE ST.

TORONTO 5, ONT., CANADA



Wise way to put your farm earnings to work...

Canada Permanent Debentures pay you 5 1/4%

for any term from 1 to 5 years

IN ANY AMOUNT OF \$100 OR MORE

Your money grows faster, when invested in Canada Permanent Debentures. High rate of interest, good security, easy to purchase—backed by the company that has served Canadian farmers for over 100 years.

Canada Permanent

MORTGAGE CORPORATION

Head Office: 320 Bay Street, Toronto 1

HALIFAX • SAINT JOHN • MONTREAL • PORT HOPE • TORONTO
HAMILTON • BRANTFORD • WOODSTOCK • WINNIPEG • REGINA
EDMONTON • VANCOUVER • VICTORIA

Capital and Reserve \$18,500,000

CG-59

MAIL NOW TO NEAREST BRANCH

Canada Permanent Mortgage Corporation:
Please send me further information on Canada Permanent Debentures.

NAME _____

ADDRESS _____

Continued from page 18

A SECOND LOOK AT CONTRACTING

with wholesaling and retail firms, in varying degrees, and for only a limited number of products.

Why Trend Developed

It is not the intention here to go into this in any great detail. There is

general agreement that the principal reason can be summarized in two words—"improved technology." Until technology had advanced to the point where livestock products could be mass-produced without running extremely severe risks, vertical integra-

tion and contracting were impractical. Better control of diseases, and technological advances in feeding, breeding and management were major factors which led to integration of, or the contracting for the production, processing and marketing of broilers, and which are prime factors leading to contract production of turkeys, hogs, eggs and the contract feeding of beef cattle.

Other forces at work are the need for producer credit, management help, and an assured market for the product once it is produced. In the off-the-farm sector of the industry, suppliers, processors and retailers are mainly concerned with competition for business and increased efficiencies throughout their operations.

It has been suggested repeatedly that off-the-farm businesses, such as feed companies, packers and retailers, are going to gain, through time, complete control over farm production by means of vertical integration. This is apparently of great concern to a large number of our farm people.

From studies and observations we have been able to make it appears that such statements are greatly exaggerated. Our reasons for thinking so may be summarized as follows:

- Independent farmers continue to produce even when they get lower returns for their labor and capital than they're worth in the market. Under such circumstances, food and fiber businesses prefer to influence farm production by contractual arrangements.
- Because with few exceptions farming is carried out on a large number of units spread over a wide area, it is not ideally suited to management from a "central office" of a corporation.
- Some companies are interested in only one product, while efficient farming commonly requires a balance of two or three enterprises.
- Tremendous amounts of capital and credit would be needed to vertically integrate meat animal production.
- The weight of public opinion would appear to be against wide-scale extension of corporate integration.

• To the extent retailers are concerned, they have not played a positive role in the development of vertical integration in Canada to date, although their merchandising policies do provide an incentive for contracting. Large capital outlays are needed for the operation of supermarkets; so large, in fact, the leasing of premises is common among chain stores. For this and other reasons already mentioned, they are not likely to want to go into the production of the raw products which they sell.

• There is no evidence to suggest that the meat packing industry in Canada is likely to extend its operations into either the field of primary production or retail merchandising. For one thing, technical advances in meat processing and the general expansion of facilities required to keep pace with population growth and livestock production is, and will be, requiring increased capital investment for plants and equipment. This factor alone seems likely to preclude any extension of operations to related fields, even if there was an inclination to do so.

• Last, but by no means least, is the resistance that farmers individually and collectively will bring to bear if a serious effort is ever made by private enterprise to take over a major part of farm production.

What About the Family Farm?

One of the ideas about contract farming which seems to have gained a good deal of acceptance is that it will impair the managerial independence of the producer and may lead to the extinction of the family farm.

A recent report on "Integration of Agriculture in North America," prepared by the secretariat of the International Federation of Agricultural Producers, states emphatically that such an idea will not stand careful scrutiny. Here is what the report has to say: "The average small farmer is not in a position—from the standpoints either of knowledge or of capital—to take advantage of modern technological developments. And if he is not in a position to improve his position in these respects—through some



Trust your Texaco
FARM SUPPLIER
for on-time deliveries

He's ready to supply you with ...

TEXACO MARFAK



the tougher
chassis lubricant
that stays on
the job

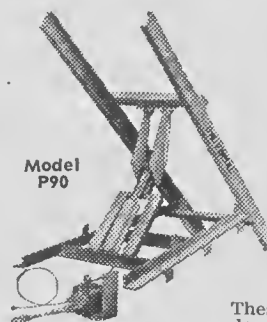
Leading farmers know from experience that for trucks, tractors, combines and cars, Marfak chassis lubricant allows longer periods between lubrications and prolongs life of bearings. It won't squeeze out, pound out or wash out.

It pays to farm with

TEXACO



WHY PAY MORE?



Model P90

NEW POWER TAKE-OFFS
With dash controls. From\$22.95
Advise make and model truck and transmission for quotation.

U-JOINTS
State bore size required\$2.95
3/4" SQUARE DRIVE SHAFT
42" long\$3.95



Model P120

These Universal Heavy Duty Hydraulic Truck Hoists will do a better job for the farmer than any hoist costing twice as much. Fits all 1, 1½, 2, 2½, 3 and 4-ton trucks, with boxes 9' to 16' long. Easy to install. Heavy duty pump, tank and valve combination. Heavy duty cylinders and lever actions.

MODEL P80—8-10 ton, 60" to 84" cab to axle, with angle iron upper sills and side control—for P.T.O.\$219.00
MODEL P80—With dash control\$227.00
MODEL E80—With Electric Pump\$239.00
MODEL P90—8-10 ton—60" to 84" cab to axle, as illustrated—for P.T.O.\$239.00
MODEL E90—As above—with Electric Pump\$252.00
MODEL P120—12-15 ton and 60" to 102" cab to axle, with channel iron upper sills\$339.00

With Farm Certificate F.O.B. Winnipeg.
ORDER NOW — ONE-YEAR GUARANTEE.
60-day money-back guarantee if not satisfied!

UNIVERSAL DISTRIBUTORS LTD. 994 Wall St., Winnipeg 10, Man.

YOUR ALL NEED *NOT* BE LOST



SAFE OR SORRY

Nothing can fully compensate for the loss of a valuable crop by Hail – BUT – a U.G.G. HAIL INSURANCE POLICY – WILL PROTECT YOUR FINANCIAL INTEREST in this critical period for Agriculture . . . *INSURANCE is the only thing you can do about HAIL.*

U.G.G. HAIL POLICIES can be cancelled at any time up to June 30th and all but 10% of the premium will be returned.

U.G.G. HAIL POLICIES afford you the protection of one of the world's largest and strongest Companies writing Hail Insurance.

U.G.G. HAIL POLICIES continue to protect until October 1st and cover hail damage to most crops in windrow, sheaf or stook.

You are insured from noon of the day following

the date stamped by your local Post Office on the envelope containing your application for your U.G.G. HAIL POLICY. See your nearest U.G.G. Agent.

U.G.G. HAIL POLICIES will pay a harvesting expense allowance in all cases where the hail damage to the crop exceeds 70%. This is in addition to the amount of claim paid.

DEDUCTIBLE POLICIES are available at lower cost. Enquire about them from your local Agent.

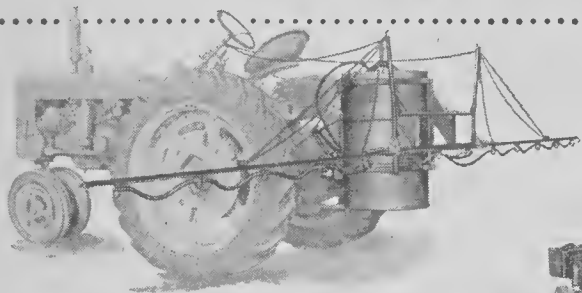
UNITED GRAIN GROWERS SECURITIES COMPANY LTD.

Consult your Local Agent for our Rates for Fire and Automobile Insurance

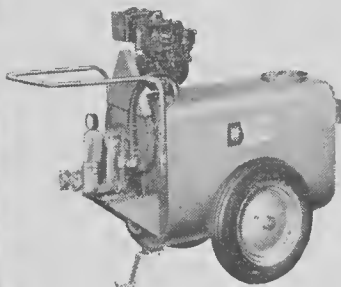
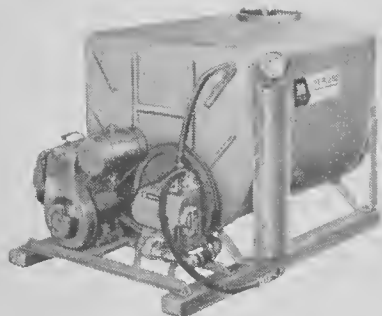
**A U.G.G. HAIL INSURANCE POLICY
WILL PROTECT YOUR FINANCIAL INTEREST**

For any capacity,
any pressure,
on any spraying
or dusting job...

HUDSON[®] HAS IT!



PTO sprayers



Self-Powered Sprayers

Select the exact model sprayer or duster you want for the performance you need—ask for Hudson!

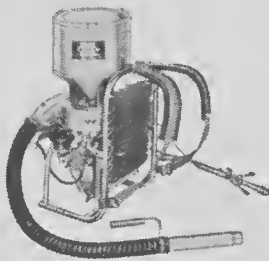
Hudson PTO and Self-Powered Peerless* or Matador® Power Sprayers save time, work and material on *all* sprayable materials—oil emulsions, heavy wettable powders, whitewashes. Rugged Hudson pumps feature diamond hard Endurall* cylinders, lifetime Perfection® nylon valves—assuring full output at any pressure up to maximum! 15 to 250 gal. sizes on wheels or skids; 3, 5 or 10 gpm.; 250, 350, 450 or 600 psi; for use with boom, Broad-Spray* or gun. Hudson PTO roller pump outfits (trailer or tractor-mounted) also available.



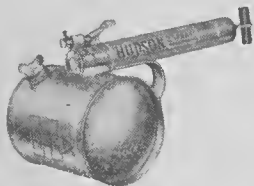
SIMPLEX® Compression Sprayer fills quicker, pump easier—seven strokes do the work of ten! For barn, yard, garden, patch weed control.



BAK-PAK® Sprayer features continuous high-pressure fog or long-range spray, Comfort-Back*. For patch weed control, other spraying. 5 gal. tank.



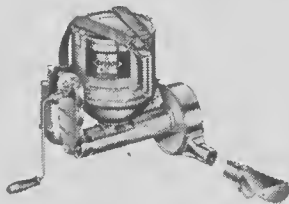
BAK-PAK® Power Duster has high-volume, high-velocity, carries easily where tractor cannot go. Mist attachment, fingertip controls.



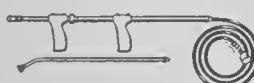
CAPITAL® 2-Spray Continuous Sprayer has thumb control for fog or coarse applications. Holds 3 qts. Other models in 1 qt. size. Garden, farm, commercial use.



SUBURBAN® Power Sprayer—for any sprayable solution (even whitewash). 1½ hp. air-cooled engine or electric motor. 5-spray nozzle, 80 psi. 12 gal. capacity.



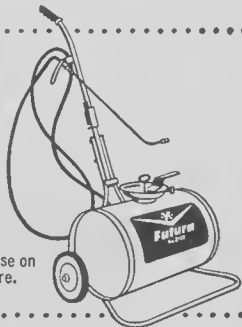
ROTO-POWER® Duster handles all powders, turns easily without clogging, carries comfortably. Fingertip feed adjustment. High-velocity discharge.



TROMBONE® and **HYDRA-GUN®** High-Pressure Sprayers.



ADMIRAL® Duster for spot or cloud dusting.



FUTURA® Sprayer. Lever-pump handle; use on lawn, garden, anywhere.

SIGN OF THE BEST BUY...for 54 years your best buy!



HUDSON

SPRAYERS AND DUSTERS

©1959

*TRADEMARK

H. D. HUDSON MANUFACTURING COMPANY • CHICAGO, ILL., U. S. A.

such device as contracting—he will not, in any event, be able to survive in this age of specialization. On balance, it must be concluded that it is the small, independent farmer—more than any other—who stands to gain through a 'fair' system of contracting. The question remains as to how 'fairness' can be assured. In the longer run this may require the establishment by the governments concerned of certain standards. But in the shorter run the best hope would be an increase in contracting through the farmers' own co-operatives—provided the latter are able to meet competition of non-farm interests in supplying service and credit."

We would like to add this observation. The trend to creating a group of "technologically displaced" farm families was clearly evident before contracting came into use in the livestock field. Contracting accelerates this trend, and thus accentuates the problems facing the farmers involved. It throws into sharp relief the need for a government sponsored rural redevelopment program on a broad scale.

Commodity Approach Helps Give Perspective

A commodity by commodity examination of the major farm products to determine the extent and impact of the trend to contracting is revealing, and helps to put the subject in better perspective.

The IFAP report just referred to devotes considerable attention to the commodity approach. The report points out that as far as crop production in North America is concerned, there had been considerable development prior to World War II of *contract farming* in respect to sugar beets and certain specialty crops; vegetables for canning; and, fruit, flower and vegetable seeds. Such contracting has continued since the war and has been extended to include oilseed crops. The trend with these crops has never elicited any special attention or anxiety.

In nearly all cases the practice of contracting has usually been motivated by one primary consideration: the desire of processors to secure a steady supply of a high and uniform quality product. On the producer side, they would not, in general, be interested in growing these commodities unless they were assured of a marketing outlet at a favorable price.

The IFAP report goes on to observe that none of the major crops in North America, such as wheat, oats and barley, corn and cotton, have been involved in vertical integration and contract farming to any significant extent. The report states: "The reasons for this are not hard to find. These are basic crops produced over wide areas and, because they constitute the agricultural 'backbone' of the areas concerned, and because they are in wide demand by consumers, they are found to be grown in large quantities without the stimulation of private contracting. Second, more efficient production through the use of modern techniques has been achieved mainly through horizontal integration (large farms); and, third, no one dealer or processor of these commodities, or any conceivable combination of private dealers and processors, could possibly take the risk of

STOP COSTLY LOSSES Let Cattle Treat Themselves

**BLAST
BUGS**

with
Sandhills

**ROPE-WICK
Cattle Oiler**

Choice of Rubbing Elements

**GIANT
ROPE**

**STEEL
GUARD**

Prices start at
\$23.95
Prepaid when
purchased
with insecticide

ALWAYS ON GUARD... Protecting Livestock against Lice, Horn Flies... Insecticides are rubbed deep down into hair and hide automatically, as cattle treat themselves all over. New Auto-Delivery pump controls flow of oil. Pump is adjustable and guaranteed leak-proof. Easy to install, attaches to post anywhere. The 5-gal. tank holds enough oil to last for weeks.



Recommended

Insecticide Concentrate

HESSKILL METHOLEX—A residual type fly spray concentrate containing Methoxychlor with Hesselol that is recommended to control Horn Flies and an aid in Louse control. For Oiler application, a can of Metholex will take care of 50 to 100 cattle for several months because it's highly concentrated. Metholex may also be mixed with water for spray application... Gallon \$10.70 postpaid.

WRITE FOR FREE INFORMATION
Dealers & Farm Agents Wanted

AUTOMATIC EQUIPMENT MFG. CO.
160—9th Ave. N.W., Swift Current, Sask.

Copenhagen



**"THE WORLD'S
BEST CHEW"**

Baby's Colic Pains

For those simple colic pains which distress and upset baby, when in need of a corrective, give Baby's Own Tablets. These mild little tablets speedily help sweeten sour rummies and clear bowels of their overload of waste and gas. Then see how quickly baby feels better... "settles down" in comfort. Clinically and time-tested. Thoroughly dependable. Taste good. Especially helpful, too, during teething time for their prompt relief from feverishness, restlessness, tummy upsets, and other minor troubles resulting from need of a corrective. Ask your doctor about Baby's Own Tablets. Get a package today at your druggist.

When planning crop or livestock production, read GUIDE-POSTS on page 11.

RUPTURED

BE FREE FROM TRUSS SLAVERY

Surely you want to **THROW AWAY TRUSSES FOREVER**, be rid of Rupture Worries. Then Why put up with wearing a gripping, chafing and unsanitary truss. For there is now a new modern Non-Surgical treatment that is designed to permanently correct rupture. These Non-Surgical treatments are so certain, that a Lifetime Certificate of Assurance is given.

Write today for our New **FREE** Book that gives facts that may save you painful, expensive surgery. Tells how non-surgically you may again work, live, play, love and enjoy life in the manner you desire. Write today—Dept. H8705
Excelsior Medical Clinic, Excelsior Springs, Mo.

guaranteeing market outlets at forward prices. It is for these reasons that, in the cases of the basic crops, the governments of the United States, Canada and Mexico have become, in effect, the integrators. And judging from experience of the past it does not appear that any private association, co-operative or otherwise, will be in a position to 'control' the marketing and prices of these commodities."

TURNING to poultry and livestock, it is significant that all the recent developments of contracting are in these fields. The fact of the matter is that the most profitable size of enterprise in broiler, turkey, egg and hog production has expanded tremendously in recent years due to fairly recent advances in technology and mechanization. These also happen to be the livestock and livestock products which are not dependent on forage as a feed for the animals.

Broiler production was the first to be subjected to the widespread use of contracts, and in some cases vertical integration. It is now considered that at least 90 per cent of the broilers produced in Canada come under such arrangements. It is estimated that 50 per cent of the turkeys are grown under contract, and there is no reason to believe this product will not follow a similar pattern to broilers.

Most of the product has been produced under contract with feed dealers, processors, hatcheries, and sometimes there are interlocking arrangements between these parties. The operations of providing feed and other supplies; management and veterinary services; hatchery services; production; processing; and, retailing are frequently carried out on a more or less co-ordinated basis, either by one management or through a co-ordinated set of contracts.

However, the integration and contracting trend in poultry meat is not considered to be typical of what is likely to happen in the case of eggs, hogs or other livestock generally. The reasons given are that: (1) Mass-produced broilers have readily under-sold beef and pork on the retail market. (2) Demand, particularly in the case of broilers, has expanded enormously in a relatively short period of time. (3) Scale of production, in contrast to crop, dairy and beef produc-

tion, is not tied to landholdings. It is considered that these special conditions, which have given such impetus to the trend in the case of poultry meat, apply to a much lesser degree to other livestock products.

Producers of eggs are tending to market their product through arrangements with chain stores and wholesalers. The most characteristic feature of such arrangements is the payment of a premium over the current market price for known quality and regularity of supply. The potential to standardize management, to establish product control, and to undergo technical change is deemed to be high in the egg field. This could lead to more eggs being produced under contract in the future.

The principal incentive to produce hogs under contract seems to be the desire of the feed manufacturer or dealer to gain a competitive advantage on the one hand, and for the producer to obtain credit to enable him to expand his hog enterprise on the other. Hog contracts, while they have made gains in Eastern Canada, are not in widespread use at present. However, they have been given as the reason for a change in the method of stabilizing hog prices by the Federal Minister of Agriculture. It remains to be seen whether this will check the trend to mass produce hogs, either with or without a contract.

Contract feeding of beef cattle in commercial feedlots has been underway for a number of years and could become a more common practice. Such lots can afford the best in labor-saving equipment and can apply the most modern feeding methods. They can buy feed ingredients in large enough quantities to get a better price than small feeders. They also have an advantage in selling, because they can offer a large group of uniform cattle for sale to meet the processors' needs. They tend to bypass the traditional market place.

In summary, there seems to be little need for the trend to contracting to cause alarm for crop producers. In the case of livestock and poultry producers, the potential for contracting of different kinds is apparent and could become more widespread. There is little evidence that much vertical integration, as defined in this article, has taken, or is likely to take place in

For 1959

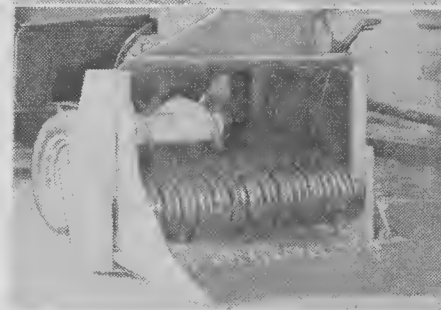
THE NEW IMPROVED Model 'S' McKEE ONE MAN HARVESTER

The McKee harvester needs but one man, but there are always interested farmers around. Shown with the new McKee self-unloading wagon.



Featuring new

- FIVE-FOOT CUT WITH UNDERSLUNG OFF-SET PICK-UP
- QUICK DETACH CUTTER BAR
- AUGER TYPE FEEDING
- DEEP ANGLE SHREDDER KNIVES
- HIGHER CAPACITY DISCHARGE
- QUICK SWITCH PICK-UP HEADS
- OVERALL INCREASED CAPACITY



The five foot cutter bar on the New Model S can be attached or detached in a few minutes. More pick-up teeth, improved feeder mouth design, and power auger, all give tremendous feed handling performance.

The new Model S McKee Harvester still retains all the trouble free features of the previous models, plus many new outstanding advantages which enable it to out-perform them all. A new large 36 inch fan and closed fan housing give higher capacity loading and unloading with less H.P. than ever before.

You can harvest 2½ to 3 tons of cured hay per hour and blow it to the farthest corner of your highest loft. (It's wonderful for stacking in the open field, too.)

You can cut, shred, and blow green corn to the top of a fifty-foot silo. (New corn knives and ledger plate handle many tons of finely shredded palatable ensilage per day.)

You can quickly transport swathed grain to a separator or pick up combine straw for bedding. (Tremendous air suction at the pick-up gets all the fine chaff ordinarily lost.)

You can switch from hay to corn pick-up in minutes, and the new self-unloading wagon will handle all crops without a fork being lifted.

You need only one machine, one tractor and one man. Think of the savings in depreciation, overhead, repairs, gasoline and labor.

You can produce more beef, get more milk, with shredded hay, grass, and corn than with any other type of roughage. You feed ground grain to your cattle; why not feed roughage that is well shredded for better and complete consumption?

This year's harvest can be fun if you order your Model S NOW!

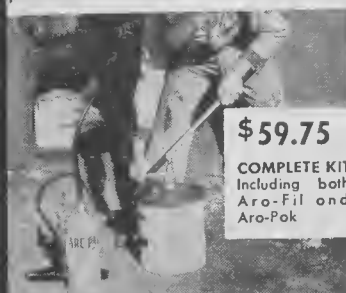
ALBERTA
McKee Harvesting
Systems
5112 47th Street
Red Deer, Alta.

SASKATCHEWAN
McKee Harvesting
Systems
8th Street E.
Post Office 13
Saskatoon, Sask.

MANITOBA
McKee Harvesting
Systems
Elm Creek
Man



New Aro-Pak lubricator develops twice pressure needed for toughest-fittings.



Aro-Pak refills in less than 2 minutes with fast, easy-to-operate Aro-Fil.

Faster Grease Up!

New ARO Farm Lube Kit

MODEL 640-100

• **FASTER LUBRICATION, VOLUME DELIVERY.** Trigger control handle passes more grease than high-pressure hand guns. Works in cold weather. Saves up to 50% in greasing time.

• **PERMANENT AIR PRIME.** One air charge lasts Aro-Pak all year.

• **FULLY PORTABLE.** Holds 5 lbs. of grease. A 2½ days lubricant supply without re-loading.

ONLY the new Aro Farm Lube Kit assures faster, cheaper, cleaner lubrication of all farm machinery! See your farm equipment dealer now.

ARO LUBRICATING EQUIPMENT
ARO EQUIPMENT
OF CANADA LTD.
Toronto 15, Ont.

Send me latest catalog information on time-saving farm lubricating equipment.

NAME _____

R.R. _____ TOWN _____ Prov. _____

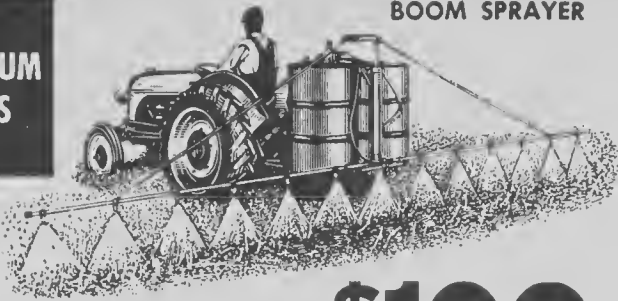
\$59.75

COMPLETE KIT
Including both
Aro-Fil and
Aro-Pak

ON PRICE.....

ALUMINUM BOOMS

BOOM SPRAYER

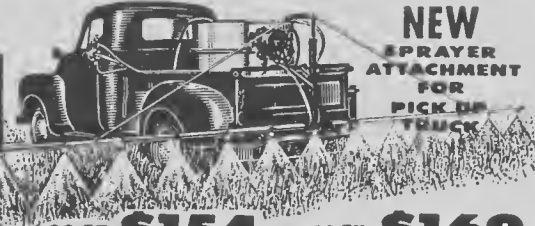


COMPLETE WITH ALUMINUM BOOMS AND NOZZLES, ONE PIECE WELDED TUBULAR BOOM RACK, MAYRATH PUMP, DELAVAN REGULATOR, PRESSURE RELIEF VALVE, PRESSURE GAUGE, HOSE AND FITTINGS, ENGINE AND PUMP MOUNT.

\$139
22 FT.

Add \$3.00 (Trailer Mounted \$6.00) F. O. B. Canada

TRAILER MOUNTED
ADD:
\$30



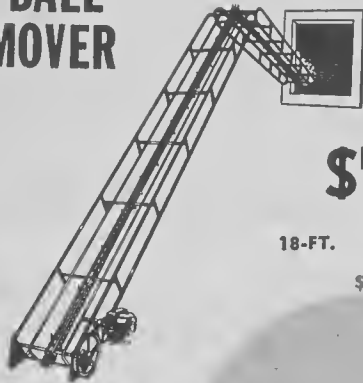
NEW
SPRAYER
ATTACHMENT
FOR
PICK UP
TRUCK

32 FT. **\$154** 42 FT. **\$169**

and

PERFORMANCE.....

BALE MOVER



HANDLES
LIKE
A
LADDER

BOTTOM
SECTION

EXTENSION

\$79 **\$69**
18-FT. 18-FT.
Add \$9.00 F. O. B. Ontario,
\$12.00 Other Canada Warehouses

GALVANIZED CORN & HAY ELEVATORS

20+ INCHES
WIDE ..



33 FT.

\$290

COMPLETE WITH CARRIAGE AND WINCH
Add: F. O. B. Ontario 60c Ft. Other Canada Warehouses 90c
ALL PRICES F. O. B. DODGE CITY, KANS., OR COMPTON, ILL.

YOU CAN'T BEAT

MAYRATH

WORLD'S LARGEST SELLING

Augers, Elevators, Bale Movers & Crop Sprayers

See your nearest Canadian distributor.

Manitoba and
Eastern Saskatchewan

WESTERN AGRICULTURAL
SUPPLY COMPANY LTD.
Ross and Isabel, Winnipeg 2

Saskatchewan

GRAIN BELT FARM
EQUIPMENT LTD.
1920 First Ave.
Regina

Alberta & B. C.

NORTHWEST FARM
EQUIPMENT LTD.
7th Ave. at 6th St. E
Calgary

Eastern Canada

TRUCK & TRACTOR EQUIPMENT LTD., Fleccline and Lakeshore Roads, Toronto 14

the livestock field. It becomes a question of how effective producers are in bargaining for fair contracts with private enterprise, and the extent to which they are able to use their own co-operative or other organizations to protect their interests.

Isn't Overproduction the Real Problem?

There is an inherent problem in the trend to mass production—a trend in the livestock field that is being speeded up by contractual arrangements.

From experience to date, contracting tends to expedite the application of the newest and most efficient techniques of production. Biological and mechanical innovations, which are output increasing and labor saving, if broadly applied, can bring about sharp increases in livestock production.

There are those who suggest that by curtailing research and extension activities we could cut down on the tendency to overproduce. This is a short-sighted viewpoint. Research in agriculture, as in other fields, is uncertain with respect both to timing and the importance of the new knowl-

edge obtained. It must of necessity be a continuous process. Moreover, it is obvious that our farmers are already hard-pressed to compete with producers in other countries for a score of reasons. Any policy that would restrict further development of the farming industry, or the application of new knowledge to farming, even if taken only as a temporary measure, would place our farmers at an even greater competitive disadvantage in both domestic and foreign markets.

Under these circumstances, and in the light of the difficulties in the international field of finding ways and means of distributing food not required on the domestic market, it is apparent that Canada will be faced with food surpluses of some products. Experience shows that such overproduction eventually leads to depressed prices for these products, regardless of government stabilization programs.

Overproduction, caused primarily by technical and mechanical improvements, and encouraged by contracting and a wide range of government programs, would seem to be the real problem. We have not yet found acceptable ways of either exporting our surpluses, or, alternatively, of matching supplies to effective demand. V

WHAT'S HAPPENING

(Continued from page 7)

accordance with the changes shown by the new 12-month totals.

- Recognizing that grain congestion and boxcar problems result whenever more grain is produced than can be sold, the report commends the Government for its sales policies, and recommends that these policies be continued with increasing vigor and aggressiveness. It further recommends that renewed efforts be made (i) to get sub-marginal land out of grain production and (ii) to create opportunities in other callings for the men now facing the impossible task of making a living on such land.

- In the interests of marketing the maximum amount of grain, the report recommends that no procedure be allowed to impair the Wheat Board's sales efficiency, or to get in the way of bringing forward the kinds and grades of grain most needed to meet market requirements from time to time.

- While recognizing that the maximum use of elevator space is desirable in a period of congestion and that banning shipments from time to time from certain points for purposes of quota uniformity is considered necessary, the report recommends that whatever the future policy of banning shipments may be, at points which have one or more full elevators while others have space available for new business, the practice of embargoing shipments from full elevators at such points should be discontinued.

- The report recommends in regard to the quota system that: (1) during the period of severe congestion the quota system as a measure of social justice be continued on as equitable a basis as practicable; (2) sales efficiency or use of space be not sacrificed for quota uniformity; (3) a

review of the uneconomic effects of the quota system be made by the Wheat Board with a view to bringing to that system a degree of economic justice as well as social justice; and (4) the permit book procedure—a necessary feature of the quota system—be so modified as to make possible for producers at single points an alternative choice of elevators such as is now enjoyed by producers at multiple elevator points.

- With respect to the distribution of boxcars among elevators at individual shipping points, the report recommends that the procedures be such as will preserve as far as practicable: (i) for all producers, the right to do their elevator business where they choose; (ii) for farmer-owners of elevators, the right to use their own facilities for all their elevator business if they so desire; and (iii) for each elevator at such a point, the right to have sufficient cars to keep it in fair competition with others at the same point, providing it has the kinds and grades of grain required from time to time by the Wheat Board.

- With respect to the congestion of railway boxcars at terminals, the report recommends that co-ordination among the elevator companies, the railways and the terminals be invited by the Wheat Board with a view to achieving by co-operation what has failed to be accomplished in the exercise of their legal rights by their individual efforts, namely, the mitigation of the wasteful and unnecessary pile-up of unloaded cars from time to time at the terminals or elsewhere.

- As to the position of the Government in relation to the Wheat Board, the report suggests that the principles advanced in the recommendations be the subject of its consideration, but that the matters of detail be left with the Board for its determination. V

"I wouldn't have believed it!"



Words go only so far in proving to you that the new International tractors are the greatest advancement in farm power in years.

The only way to *really* understand how this "New World of Power" will streamline your farming is to get in the seat, take the wheel, and then take to the field.

Feel the *sm-o-o-th* six-cylinder power that takes the biggest jobs in its stride (and takes the noise and vibration away, for the operator's comfort!) Notice how you throttle-down on the lighter work. With an IH Multi-Range Six you cut your power to your job—and cut your fuel and maintenance costs.

Just pull the Torque Amplifier lever to reduce tractor speed and boost pull-power 45 per cent *on-the-go*, without touching clutch or gearshift. TA will help you get 10 to 15 per cent more work done in a normal day—with far less fatigue.

IH Completely Independent Power Take-Off is another big efficiency and economy feature for operating your

power-driven machines. Teamed up with TA, IPTO gives you all the advantages of separate engine performance without the separate engine expense!

IH 2 or 3 valve Hydra-touch hydraulics give you more hydraulic power than ever before—easily adapted to your most exacting needs—to make your job easier, more productive, more satisfying.

Choose the power that is matched to your needs

International 460 Wheatland Multi-Range six—48 drawbar horsepower. Specially built for the average-sized Western wheatland farm. Diesel or gasoline.

International 560 Multi-Range six—54 drawbar horsepower. Diesel or gasoline.

International 660 Multi-Range six—68 drawbar horsepower. The ultimate in power and performance for the really *big* operator. Diesel or gasoline.

See your IH Dealer for a prove-to-yourself
demonstration on your land—now

INTERNATIONAL HARVESTER





Do your buildings look like this?
... if not, improve yours now
with a low-cost BNS loan

Improved facilities often make a farm run more profitably. The trouble is, sometimes the money needed to make these improvements isn't there when you need it. That's when a Bank of Nova Scotia low-cost loan can help you.

Your neighbourhood Bank of Nova Scotia manager looks at it this way: If it's sound business for you, it's sound business for the bank. Drop in and talk over a low-cost Farm Improvement Loan with him next time you're in town. You'll find he speaks your language.

The BANK of NOVA SCOTIA

More than 500 branches across Canada
 and in London, New York, the Caribbean.



Rural Route Letter

Hi Folks:

"We are in retreat," said Ted Corbett as we came out of a recent farm meeting. "All along the farm front the old cost-price squeeze has got us on the run, and we go and elect a man like Ed Tatum to head our organization."

"What's wrong with Ed Tatum?" I said. "He's got both feet on the ground."

"That's the trouble, we need a man who'll get up off the ground once in awhile—a man of destiny. Like Mr. Diefenbaker, for instance—a Moses to lead us out of the wilderness."

"I don't get you."

"It's like this," Ted explained. "Sure, Ed's a good fella and all that, but did you hear what he said when he thanked the meeting for electing him?"

"Sure. He said, 'thank you for electing me, I shall try to be worthy of your confidence'."

"That's what I mean!" Ted cried. "No power, and what's worse — no vision. We need a man with a vision. Do you recall what Mr. Diefenbaker said when somebody asked him if he was optimistic about the future?"

"Not offhand," I replied.

"Well he said, 'I'm always optimistic — but sometimes I'm pessimistic'."

"He can't be both."

"Sure he can be both! Why he left the fella that asked him the question full of wonder that anybody could manage both at the same time. It's like having two prime ministers for the price of one."

"I still say Ed Tatum will make good president," I told him.

"And that ain't all," he went on, not heeding me, "when everybody was wondering if the United States was going to get a foreign policy into orbit, Mr. Eisenhower came in off the fairway and made a speech about it. A reporter asked Mr. Diefenbaker what he thought about the President's speech and he said, 'It was the epitome of a declaration that should find acceptance'."

"What does that mean?"

"Who cares what it means!" he said impatiently. "He wasn't talking for dopes like you and me. Men of destiny talk words that'll go down in history. Them history professors will know what it means."

Anyway, those are Ted Corbett's ideas on the subject. All I can say is may all his epitomes be little ones.

Yours,

PETE WILLIAMS.

What Farm Organizations Are Doing

(Continued from page 10)

AFA SENDS VIEWS TO MINISTER

The Alberta Federation of Agriculture, at a spring Board meeting in April, discussed at length the question of support prices on hogs and the possible application of deficiency payments. The conclusions reached were sent to the Federal Minister of Agriculture, and may be summarized as follows:

- That the AFA Board supports the principle of deficiency payments as a means of stabilizing the price for market hogs.

- That with the proposed change to deficiency payments to bring the price up to 80 per cent of the 10-year average, it was particularly important that the average used be calculated on the respective Alberta markets and not on a Toronto price with freight differentials.

- That the number of hogs marketed beyond which the deficiency payment would not apply was a very important factor. The Board were of the opinion that this figure should not be lower than 200 head; any lower figure might work a hardship and discourage many of the good, efficient producers.

- That deficiency payments should be calculated on a short-run basis,

from week to week and, if possible, on a daily basis. The determination of deficiency payments on a longer-term basis was not considered satisfactory.

SASK. FEDERATION MEETING HIGHLIGHT

The Saskatchewan Federation of Agriculture is of the opinion that deficiency payments are to be made on hogs, they must be based on prices having a fair relationship to the costs of production as outlined in the Agricultural Stabilization Act. A resolution to this effect was passed at an SFA meeting held in Saskatoon early in April.

In discussing the subject, Olaf Turnbull, the SFU vice-president, stated that many authorities think other than cyclical surpluses would develop in farm commodities over the next 10 to 15 years. Government policy of purchasing periodic surpluses had worked successfully in the past, but under present conditions of continuing surpluses other ways of stabilizing farm income would have to be found. The concept of deficiency payments was good, Mr. Turnbull said, provided it was applied to other farm commodities as well.

J. H. Wesson expressed the view that surplus pork production was the result of low grain prices rather than vertical integration.

Give Hearing in BOTH EARS
plus ALL THESE FEATURES

- No receiver button in ear. No cord.
- No attachments behind ear. Nothing to hide.
- Amazingly light, comfortable.
- Hearing aid hidden inside glasses. Tiny, almost invisible tube carries sound to the ear.
- Full range, full dimensional, higher fidelity hearing.

Mail coupon
 today for
FREE BOOK!
 No obligation!

Beltone Hearing Aid Co., Dept. 4-860
 P.O. Box 52, Rosemount, Montreal, Que.

Rush me in plain wrapper FREE book that reveals how only Beltone Hearing Glasses hide deafness as never before, give hearing in BOTH EARS, and provide other amazing benefits.

Name _____

Address _____

Town _____

Zone _____

Prov. _____

Valley Keeps Cucumbers Crisp

by D. I. SCOTNEY

JUST over a decade ago, the idea of growing cucumbers commercially in Nova Scotia was practically unheard of. At this same time, the Russians were overrunning Czechoslovakia, putting an end to freedom and taking over ownership of industry. One of the plants confiscated was a pickle plant owned by Vlad J. Fejtek. The factory was one of the largest processing plants in the country. Then, one night, along with his leading chemist, Mr. Fejtek slipped through the Red cordon, and after many adventures arrived in Canada in 1949.

Mr. Fejtek believed that the pickle industry could also find its place in the country where he had sought refuge. The decline of the apple industry in 1950 acted as a spur for the pickling trade. Hard hit by the loss of apple markets, Annapolis Valley farmers flocked to meetings held throughout the district to hear what the future held for the growing of cucumbers for the new pickling industry. The response was excellent, and at the end of August 1950, the new plant made its debut by pickling a million pounds of cucumbers; 250 growers participated, and crops ranged from a quarter of an acre to three acres per farm. The average return was over \$300 per acre. Four fieldmen were kept busy operating the grading stations and giving advice to the growers during the growing season. Cucumbers were graded and paid for in six different sizes, highest returns coming from cucumbers between $\frac{3}{4}$ " to $1\frac{1}{4}$ " in diameter.

The Annapolis Valley is well adapted for growing "cukes," as has been proved by tests at the Kentville Experimental Farm. Through educational and advertising methods, Mr. Fejtek encouraged farmers to grow more cucumbers. Junior production clubs were started in Kings and Hants Counties, to encourage youngsters. Each season a "cucumber king" is crowned at a company-sponsored banquet, and prizes are awarded to those growing the best cucumbers.

Mr. Fejtek introduced a method of pasteurizing whole pickles to the Canadian market. Pasteurized pickles keep the original crispness of fresh cucumbers, as well as retaining almost as many vitamins. V



V. J. Fejtek introduced a method for pasteurizing pickles to Nova Scotia.

Look what you and your Magic can create!



Even a grand celebration cake is easy to make, and a sure success, when you use Magic Baking Powder. This is a light textured, deliciously flavoured cake with an exotic icing to give it the finishing touch.

Celebration Cake

$\frac{3}{4}$ cup granulated sugar
 $\frac{3}{4}$ cup boiling water
 $1\frac{2}{3}$ cups once-sifted all-purpose flour
or 2 c. once-sifted pastry flour
3 teaspoons Magic Baking Powder
 $\frac{3}{4}$ teaspoon salt
 $1\frac{1}{2}$ cups granulated sugar
 $\frac{1}{2}$ cup cooking (salad) oil
5 egg yolks
 $\frac{1}{4}$ cup water
1 teaspoon vanilla
 $\frac{1}{2}$ teaspoon cream of tartar
1 cup egg whites, at room temperature

Melt $\frac{3}{4}$ c. sugar over low heat, stirring until golden brown; remove from heat and gradually stir in boiling water. Simmer until sugar dissolves. Cool. Sift flour, Magic Baking Powder, salt and $1\frac{1}{2}$ c. sugar into mixing bowl. Make a well in flour mixture; add oil, egg yolks, $\frac{1}{2}$ c. of the cold caramel syrup, $\frac{1}{4}$ c. water and vanilla; mix liquids a little with mixing spoon; combine with flour mixture and beat until smooth. Sprinkle cream of tartar over egg whites; beat until very, very stiff (much stiffer than for meringue). Fold batter into egg whites, about $\frac{1}{4}$ at a time. Turn into *ungreased* deep square or round tube pan (9 or 10", top inside measure). Bake in slow oven, 325° , about $1\frac{1}{4}$ hrs. Immediately cake is baked, invert pan; let cake hang until cold. (To "hang" cake, rest tube of inverted pan on funnel or rest rim of pan on 3 inverted small cups.) Frost cold cake with Caramel Icing; decorate with toasted blanched almonds.

Caramel Icing—Cream $\frac{1}{8}$ c. butter or margarine; blend in 2 egg yolks and $\frac{1}{2}$ tsp. vanilla. Blend in 4 c. sifted icing sugar alternately with $\frac{1}{4}$ c. caramel syrup and sufficient milk, about 2 tbsp., to make icing of spreading consistency.

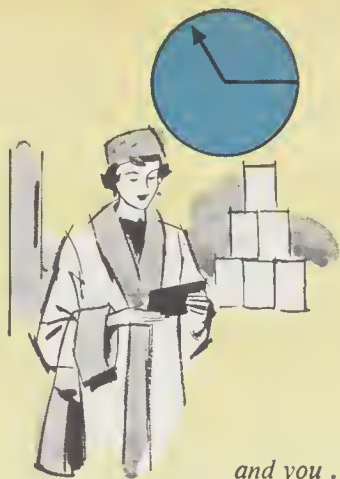
Another fine product of
STANDARD BRANDS
LIMITED



You can depend on Magic



your selector ...



and you ...



and STEPHENS PAINTS ...



reawaken your room



in an afternoon



ready for youngsters



home from school

LET STEPHENS PAINTS AND THE FREE *Color Selector*

REAWAKEN YOUR KITCHEN

in just an afternoon

Does your kitchen need a pick-me-up?

The best tonic is color—and the most lasting color is Stephens. You can paint in the afternoon—hang your curtains immediately—and be ready to let the youngsters rustle a snack after school!

And with Stephens new Color Selector you can choose your colors with confidence and know they're right for *your* room.

Your horoscope says: there's a brighter tomorrow for you—if you paint with Stephens today!



ASK FOR *Ballet* 540*

- quick drying • latex
- more than 500 custom colors

ASK FOR *Colorscope**

- odorless • alkyd • enamel
- 305 custom colors

*satin and gloss finish require slightly longer drying time.



WINNIPEG • REGINA • SASKATOON • CALGARY • EDMONTON